				AMENDI	FOR ED REPOR	RM 3									
					PARTMENT DIVISION C						AIVILIADI	LD KLI OK			
		AF	PLICATION FOR	PERMIT T	O DRILL					1. WELL NAME and N	UMBER NBU 921-:	27P-HZ			
2. TYPE C	OF WORK	DRILL NEW WELL	REENTER P&	A WELL	DEEPEN	I WELL)			3. FIELD OR WILDCAT NATURAL BUTTES					
4. TYPE C	F WELL	G	as Well Coalb	ed Methane	Well: NO					5. UNIT or COMMUNITIZATION AGREEMENT NAME NATURAL BUTTES					
6. NAME	OF OPERATOR		KERR-MCGEE OIL & C	GAS ONSHO	RE. L.P.					7. OPERATOR PHONE 720 929-6515					
8. ADDRE	SS OF OPERA		P.O. Box 173779, D							9. OPERATOR E-MAII			:om		
	10. MINERAL LEASE NUMBER (FEDERAL, INDIAN, OR STATE) 11. MINERAL OWNERSHIP EFFEDAL INDIAN STATE FEE									12. SURFACE OWNER	SHIP		<u> </u>		
	U ⁻	T ST UÓ 01194 ST OWNER (if box 12	= 'fee')	FEDERAL	L NE	JIAN	STATE	(D) FEE(2	FEDERAL IN	DIAN ()	STATE		E (
15. ADDR	ESS OF SURF	ACE OWNER (if box	12 = 'fee')							16. SURFACE OWNE	R E-MAIL	if box 12 :	= 'fee')		
		•	<u> </u>	18. INTENI	D ТО СОММ	IINGI F PR	RODUCTIO	N FROM		19. SLANT					
	N ALLOTTEE (2 = 'INDIAN')	OR TRIBE NAME			FORMATIO	NS	ng Applica	_)	VERTICAL DIF	RECTIONAL	н	ORIZONT	AL 📵	
20. LOC	ATION OF WEL	L	FC	OTAGES		QTR	R-QTR	SECTIO	ON	TOWNSHIP	RAI	NGE	ME	RIDIAN	
LOCATION	ON AT SURFAC	E	463 F	SL 944 FEL	-	SE	ESE	27		9.0 \$	21.	0 E		S	
Top of U	Jppermost Pro	ducing Zone	141 FN	L 1102 FW	'L	NW	VNW	26	9.0 S		21.	.0 E		S	
At Total	Depth		141 FN	NL 1102 FWL NWNW 26					9.0 S	21.	0 E		S		
21. COU	NTY	UINTAH		22. DISTAN	NCE TO NEA	REST LEA	ASE LINE	Feet	7	23. NUMBER OF ACR	ES IN DRIL 0	LING UNI	Г		
				25. DISTAN (Applied F	NCE TO NEA	REST WE or Compo	etec)	E POOL		26. PROPOSED DEPT		TVD: 1043	34		
27. ELEV	ATION - GROU	ND LEVEL		28. BOND	28. BOND NUMBER 22013542					29. SOURCE OF DRIL WATER RIGHTS APPR		IBER IF AF	PLICABL	.E	
		1002		Она	Casing			formation							
String	Hole Size	Casing Size	Length	Weight	Grade 8	Thread	l Max	Mud Wt.		Cement		Sacks	Yield	Weight	
SURF	12.25	9.625	0 - 2 19	36.0	J-55	LT&C	_	8.4		Type V		215	1.18	15.6	
L1	6.125	4.5	9556 - 15158	11.6	P-110	0 LT&C	-	11.5		Type V No Used		50	0.0	15.6 0.0	
H			, , ,							No Used		0	0.0	0.0	
I1	8.75		0 - 10771	26.0	P-110	0 LT&C		12.4	Pr	emium Lite High Sti	rength	590	1.98	12.5	
										50/50 Poz		520	1.25	14.3	
	ATTACHMENTS														
VERIFY THE FOLLOWING ARE ATTACHED IN ACCORDANCE WITH THE UTAH OIL AND GAS CONSERVATION GENERAL RULES															
≥ w	WELL PLAT OR MAP PREPARÉD BY LICENSED SURVEYOR OR ENGINEER COMPLETE DRILLING PLAN														
AF	AFFIDAVIT OF STATUS OF SURFACE OWNER AGREEMENT (IF FEE SURFACE) FORM 5. IF OPERATOR IS OTHER THAN THE LEASE OWNER														
I ✓ DI	DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY DRILLED) TOPOGRAPHICAL MAP														
NAME A	NAME Andy Lytle TITLE Regulatory Analyst PHONE 720 929-6100														
SIGNATI	JRE		DATE 10/03/201	1				EMAIL andre	w.lytle	@anadarko.com					
API NUM	API NUMBER ASSIGNED 43047520490000 APPROVAL														

NBU 921-27P-HZ Drilling Program
1 of 8

Kerr-McGee Oil & Gas Onshore. L.P.

NBU 921-27P-HZ

 Surface:
 463 FSL / 944 FEL
 SESE
 SEC.27-T9S-R21E

 BHL:
 141 FNL / 1102 FWL
 NWNW
 SEC.26-T9S-R21E

Unitah County, Utah Mineral Lease: UT ST UO 1194A-ST / UT ST UO 01194 ST

ONSHORE ORDER NO. 1

DRILLING PROGRAM

Estimated Tops of Important Geologic Markers: Estimated Depths of Anticipated Water, Oil, Gas, or Mineral Formations

Formation Depth Uinta 0 - Surfaçe Green River Water Birds Nest Water Water Mahogany 4763 Wasatch Gas 7494 Gas Mesaverde 9821 Gas Castlegate 10337 Gas 10434 15158

3. <u>Pressure Control Equipment</u> (Schematic Attached)

Please refer to the attached Drilling Program

4. **Proposed Casing & Cementing Program:**

Please refer to the attached Drilling Program

5. **Drilling Fluids Program:**

Please refer to the attached Drilling Program

6. <u>Evaluation Program:</u>

Please refer to the attached Drilling Program

NBU 921-27P-HZ Drilling Program 2 of 8

7. <u>Abnormal Conditions</u>:

Maximum anticipated bottom hole pressure calculated at

10,434 approximately equals

6.469 ps

(0.62 psi/ft = actual bottomhole gradient)

Maximum Anticipated Bottom Hole Pressure (MABHP) = Pore Pressure at TD

Maximum anticipated surface pressure equals approximately

3,944 psi (bottom hole pressure

minus the pressure of a partially evacuated hole calculated at 0.22 psi/foot, per Onshore Order No. 2).

Per Onshore Order No. 2 - Max Anticipated Surf. Press.(MASP) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point))

8. Anticipated Starting Dates:

Drilling is planned to commence immediately upon approval of this application

9. <u>Variances:</u>

Please refer to the attached Drilling Program. Onshore Order #2 – Air Drilling Variance

Kerr-McGee Oil & Gas Onshore LP (KMG) respectfully requests a variance to several requirements associated with air drilling outlined in Onshore Order 2

- Blowout Prevention Equipment (BOPE) lequilement
- Mud program requirements; and
- Special drilling operation (surface equipment placement) requirements associated with air drilling.

This Standard Operating Practices addendum provides supporting information as to why KMG current air drilling practices for constructing the surface casing hole should be granted a variance to Onshore Order 2 air drilling requirements.

The reader should note that the air rig is used only to construct a stable surface casing hole through a historically difficult lost circulation zone. A conventional rotary rig follows the air rig, and is used to drill and construct the majority of the wellbore.

More notable, KMG has used the air rig layout and procedures outlined below to drill the surface casing hole in approximately 675 wells without incident of blow out or loss of life.

Background

In a typical well, KMG utilizes an air rig for drilling the surface casing hole, an interval from the surface to surface casing depths, which varies in depth from 1,700 to 2,800 feet. The air rig drilling operation does not drill through productive or over pressured formations in KMG field, but does penetrate the Uinta and Green River Formations. The purpose of the air drilling operation is to overcome the severe loss circulation zone in the Green River known as the Bird's Nest while creating a stable hole for the surface casing. The surface casing hole is generally drilled to approximately 500 feet below the Bird's Nest.

Received: October 03, 2011

NBU 921-27P-HZ Drilling Program
3 of 8

Before the surface air rig is mobilized, a rathole rig is utilized to set and cement conductor pipe through a competent surface formation. Generally, the conductor is set at 40 feet. In some cases, conductor may be set deeper in areas that the surface formation is not found competent. This rig also drills the rat and mouse holes in preparation for the surface casing and production string drilling operations.

The air rig is then mobilized to drill the surface casing hole by drilling a 12 1/4 inch hole for the first 200 feet, then will drill a 11inch hole to just above the Bird's Nest interval with an air hammer. The hammer is then tripped and replaced with a 11 inch tri-cone bit. The tri-cone bit is used to drill to the surface casing point, approximately 500 feet below the loss circulation zone (Bird's Nest). The 8-5/8 inch surface casing is then run and cemented in place, thereby isolating the lost circulation zone.

KMG fully appreciates Onshore Order 2 well control and safety requirements associated with a typical air drilling operations. However, the requirements of Onshore Order 2 are excessive with respect to the air rig layout and drilling operation procedures that are currently in practice to drill and control the surface casing hole in KMG Fields.

Variance for BOPE Requirements

The air rig operation utilizes a properly lubricated and maintained air bowl divertor system which diverts the drilling returns to a six-inch blooic line. The air bowl is the only piece of BORTe quipment which is installed during drilling operations and is sufficient to contain the air return as ociated with this drilling operation. As was discussed earlier, the drilling of the surface have the encounter any over pressured or productive zones, and as a result standard BOPE equipment should not be required. In addition, standard drilling practices do not support the use of COPE in 40 feet of conductor pipe.

Variance for Mud Material Requirements

Onshore Order 2 also states that suffice an quantities of mud materials shall be maintained or readily accessible for the purpose of asstring adequate well control. Once again, the surface hole drilling operations does not accounter over pressured or productive intervals, and as a result there is not a need to control pressure in the surface hole with a mud system. Instead of mud, the air rigs utilize water from the reserve pit for well control, if necessary. A skid pump which is located near the reserve pit (see attach near) will supply the water to the well bore.

Variance for Special Drilling Operation (surface equipment placement) Requirements

Onshore Order 2 requires specific safety distances or setbacks for the placement of associated standard air drilling equipment, wellbore, and reserve pits. The air rigs used to drill the surface holes are not typical of an air rig used to drill a producing hole in other parts of the US. These are smaller in nature and designed to fit a KMG location. The typical air rig layout for drilling surface hole in the field is attached.

Typically the blooie line discharge point is required to be 100 feet from the well bore. In the case of a KMG well, the reserve pit is only 45 feet from the rig and is used for the drill cuttings. The blooie line, which transports the drill cuttings from the well to the reserve pit, subsequently discharges only 45 feet from the well bore.

Typically the air rig compressors are required to be located in the opposite direction from the blooie line and a minimum of 100 feet from the well bore. At the KMG locations, the air rig compressors are approximately 40 feet from the well bore and approximately 60 feet from the blooie line discharge due to the unique air rig design. The air compressors (see attachment) are located on the rig (1250 cfm) and

NBU 921-27P-HZ Drilling Program
4 of 8

on a standby trailer (1170 cfm). A booster sits between the two compressors and boosts the output from 350 psi to 2000 psi. The design does put the booster and standby compressor opposite from the blooie line.

Lastly, Onshore Order 2 addresses the need for an automatic igniter or continuous pilot light on the blooie line. The air rig does not utilize an igniter as the surface hole drilling operation does not encounter productive formations.

Variance for FIT Requirements

KMG also respectfully requests a variance to Onshore Order 2, Section III, Part Bi, for the pressure integrity test (PIT, also known as a formation integrity test (FIT)). This well is not an exploratory well and is being drilled in an area where the formation integrity is well known. Additionally, when an FIT is run with the mud weight as required, the casing shoe frequently breaks down and causes subsequent lost circulation when drilling the entire depth of the well.

Conclusion

The air rig operating procedures and the attached air rig layout have effectively maintained will control while drilling the surface holes in KMG Fields. KMG respectfully requests a variance from Onshore Order 2 with respect to air drilling well control requirements as discussed above.

10. <u>Other Information:</u>

Please refer to the attached Drilling Program.

eturne

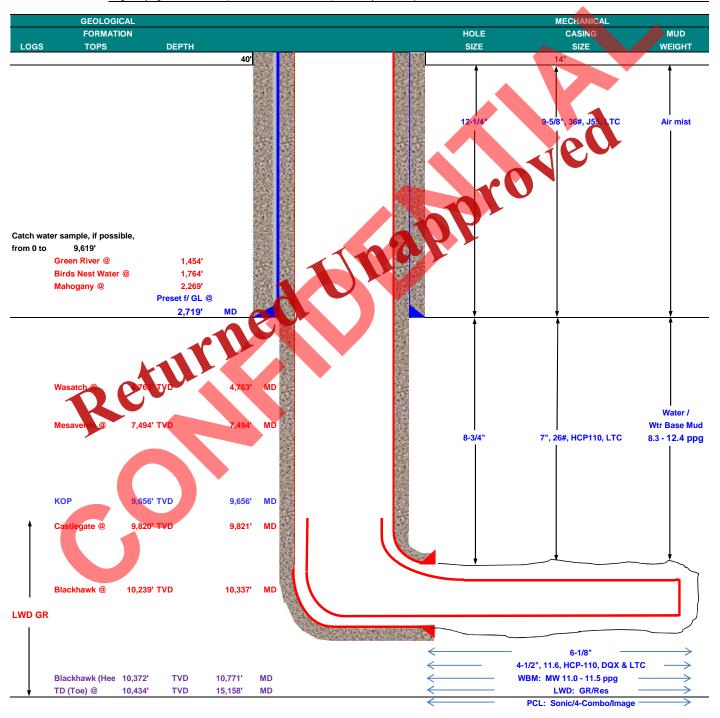
NBU 921-27P-HZ

Drilling Program

5 of 8

KerrNeGee Kerr McGee Oil and Gas Onshore LP DRILLING PROGRAM

Kerr McGee Oil and Gas Onshore LP COMPANY NAME DATE October 3, 2011 NBU 921-27P-HZ TVD KB 25' WELL NAME 10,434' **15,158'** MD FIELD COUNTY Uintah STATE ELEVATION 4,962' GL KB 4,987' Natural Buttes Utah SURFACE LOCATION SESE Sec 27, T9S, R21E 463' FSL 944' FEL BTM HOLE LOCATION NWNW Sec 26, T9S, R21E 141' FNL 1102' FWL Surface Latitude: 40.001090 -109.531057 NAD 27 Longitude BHL Latitude: 40.013913 Longitude: -109.523796 NAD 27 OBJECTIVE ZONE(S) Mesaverde (Blackhawk) ADDITIONAL INFO Regulatory Agencies: UDOGM (MINERALS AND SURFACE), Tri-County Health Dept.



NBU 921-27P-HZ

Drilling Program

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Kerr McGee Oil and Gas Onshore LP DRILLING PROGRAM

CASING PROGRAM

									DESIGN FACTORS	
	SIZE	INTE	RVAL		WT.	GR.	CPLG.	BURST	COLLAPSE	TENSION
CONDUCTOR	14"	0	40'							
								3520	2020	453000
SURFACE	9-5/8"	0	to	2,719'	36.00	J55	LTC	0.89**	1.59	5.37
								9950	7800	278000
INTERMEDIATE	7"	0	to	10,771'	26.00	HCP-110	DQX	1.59	1.25	1.25
								10690	8650	367000
PRODUCTION	4-1/2"	9556	to	10,871'	11.60	HCP-110	DQX	32.21	1.39	5.19
•			·					10690	8650	279000
	4-1/2"	10,871'	to	15,158'	11.60	HCP-110	LTC	>100	1,39	5.61

- 1) Max Anticipated Surf. Press.(MASP) (Surface Casing) = (Pore Pressure at next csg point-(0.22 psi/ft-partial evac gradient x TVD of next csg point)
- 2) MASP (Prod Casing) = Pore Pressure at TD (.22 psi/ft-partial evac gradient x TD)

(Burst Assumptions: TD = 11.5 ppg)

.22 psi/ft = gradient for partially evac wellbore

(Collapse Assumption: Fully Evacuated Casing, Max MW)

(Tension Assumptions: Air Weight of Casing*Buoy.Fact. of water)

MASP 3944 psi

* Burst SF is low but casing is much stronger than formation at 2719'. EMW @ 2719' for 3520# is 24.9 ppg or 1.29 psi/ft

CEMENT PROGRAM

		FT. OF FILL	DESCRIPTION	SACKS	EXCESS	WEIGHT	YIELD
SURFACE	LEAD	500	Premium cmt + 2% CaCl ₂	215	60%	15,60	1.18
Option 1			+ .25 pps flocele				
	TOP OUT CMT (1)	200	20 gals sodium silicate + Premium cmt	50		15.60	1.18
			+ 2% CaCl ₂ + .25 pps flocele				
	TOP OUT CMT (2)	as required	Premium cmt + 2% CaCl ₂	as req.		15.60	1.18
SURFACE			NOTE: If well will circulate water to surface	Ou 2	be utilized		
Option 2	LEAD	2,219'	65/35 Poz + 6% Gel + 10 pps gilsonite	52	35%	12.60	1.81
			+.25 pps Flocele + 3% salt BWOW				
	TAIL	500	Premium cmt + 2% CaCl,	180	35%	15.60	1.18
			+ .25 pps hocele				
	TOP OUT CMT	as required	Premium cmt + 2 % CaCl	as req.		15.60	1.18
INTERMEDI	ATE LEAD	6,994'	Premium Lite II + 3% I/CI + 0.25 pps	590	10%	12.50	1.98
			celloflake + 5 pps gilsonite + 10% gel				
			₩ 0.5% extender				
	TAIL	3777	0/50 Poz/G + 10% salt + 2% gel	520	10%	14.30	1.25
			+.1% R-3				
PRODUCTIO	ON LEAD		No cement will be used on Packers Plus Completion System				
		610					
	TAIL						

- Excess applied to the Lead slurry is calculated on Open hole Volume only.
- *Substitute caliper hole volume plus 5% excess for LEAD if accurate caliper is obtained
- *Substitute caliper hole volume plus 10% excess for TAIL if accurate caliper is obtained

FLOAT EQUIPMENT & CENTRALIZERS

SURFACE	Guid <mark>e sh</mark> oe, 1 jt, inser <mark>t float</mark> . Centralize first 3 joints with bow spring
	centra <mark>lizers</mark> . Thread lo <mark>ck g</mark> uide shoe.
INTERMEDIATE	Float shoe, 2 jt w/ centralizer on each, float collar. 1 centralizers on next 23 joints, total 25 centralizers
PRODUCTION	Packer Plus completion system

NBU 921-27P-HZ Drilling Program 7 of 8

ADDITIONAL INFORMATION

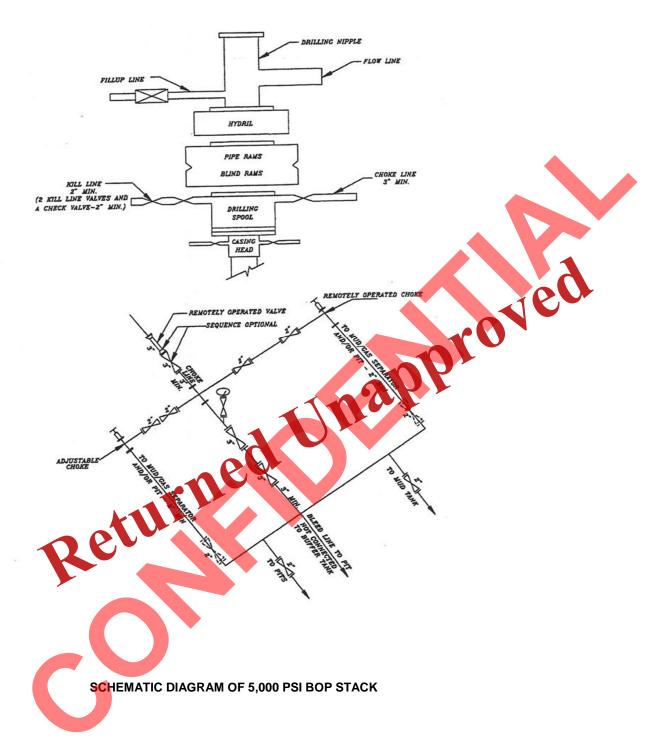
	Test casing head to 750 psi after installing. Test surface casing to 1,500 psi prior to drilling out. Test intermediate casing to 4500 psi prior to drill out.											
	BOPE: 11" 5M with one annular and 2 rams. Test to 5,000 psi (annular to 2,500 psi) prior to	BOPE: 11" 5M with one annular and 2 rams. Test to 5,000 psi (annular to 2,500 psi) prior to drilling out. Record on chart recorder &										
	tour sheet. Function test rams on each trip. Maintain safety valve & inside BOP on rig floor at all times. Kelly to be equipped with upper											
	Survey with MWD every 100' during planned angle changes and every 500' when maintaining	g angle.										
	Most rigs have PVT System for mud monitoring. If no PVT is available, visual monitoring will I	pe utilized.										
RILLING	G ENGINEER:	DATE:	9/26/2011									
	John Huycke											
RILLING	G SUPERINTENDENT:	DATE:										

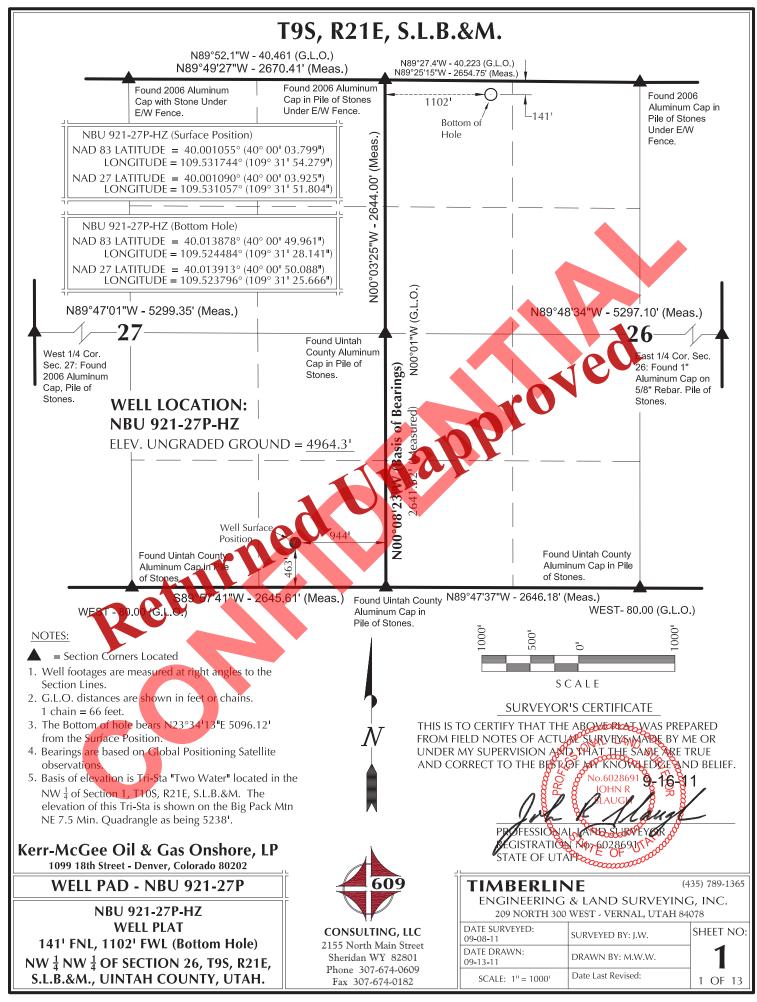


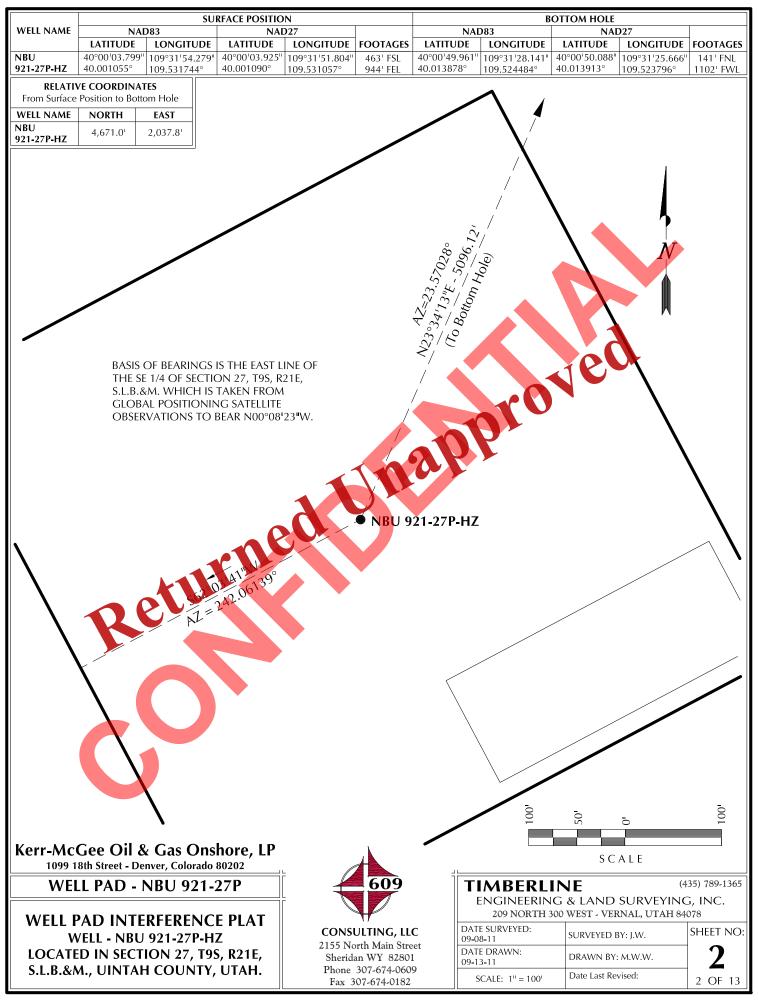
NBU 921-27P-HZ

EXHIBIT A NBU 921-27P-HZ

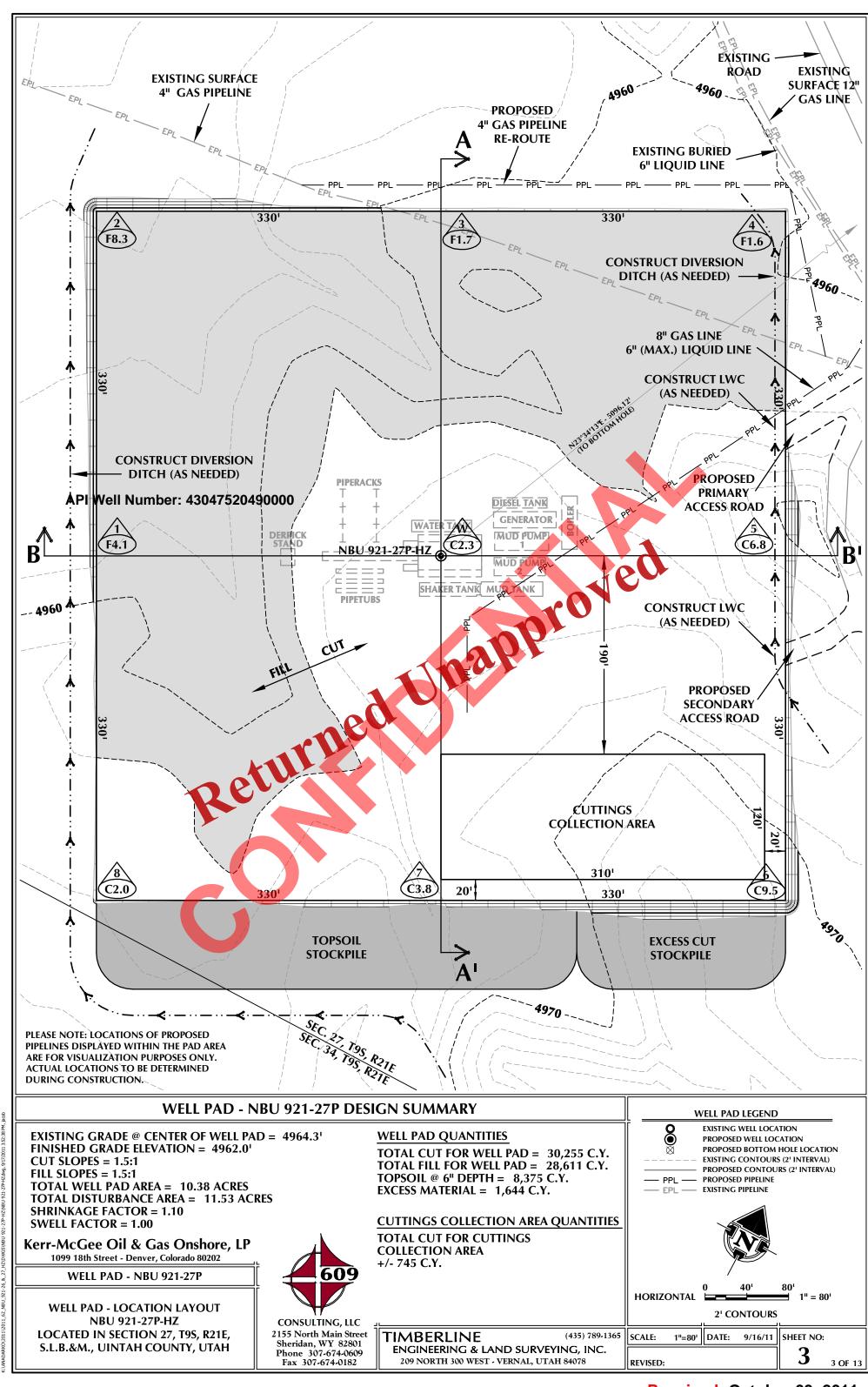
Drilling Program 8 of 8

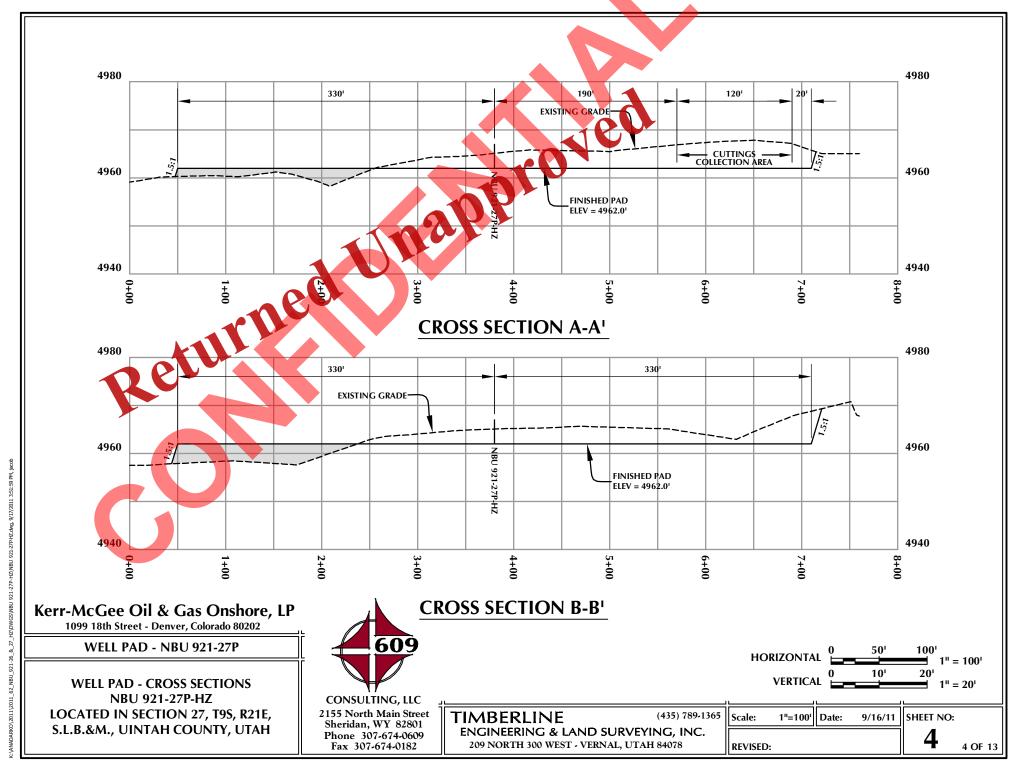




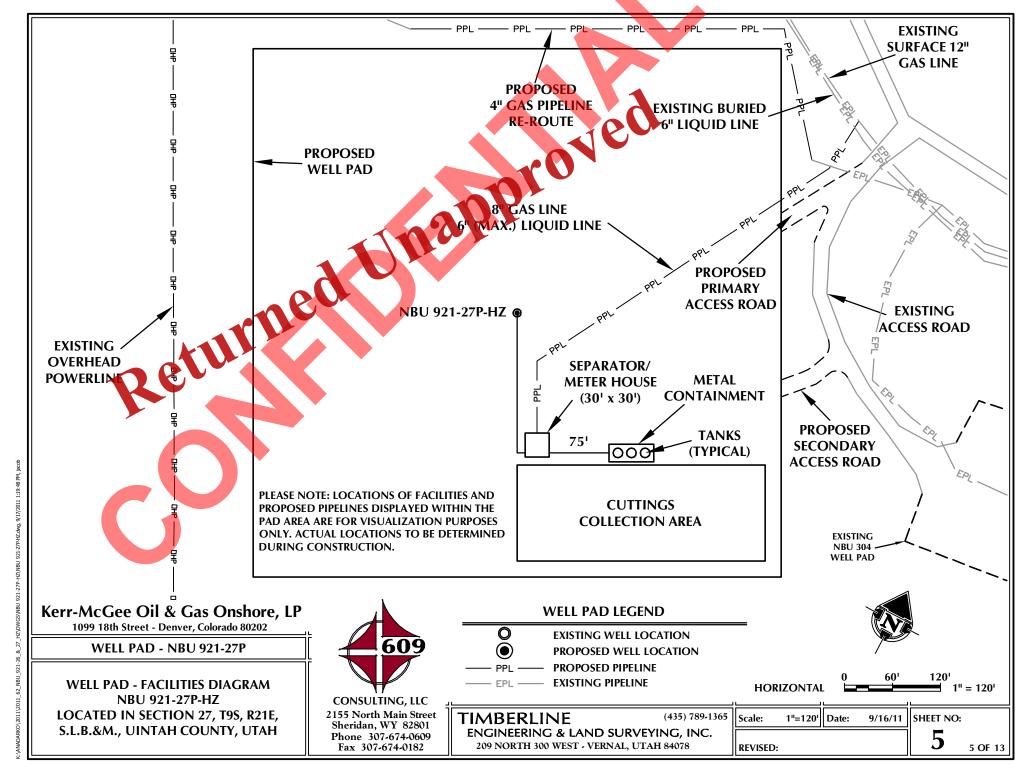


Received: October 03, 2011

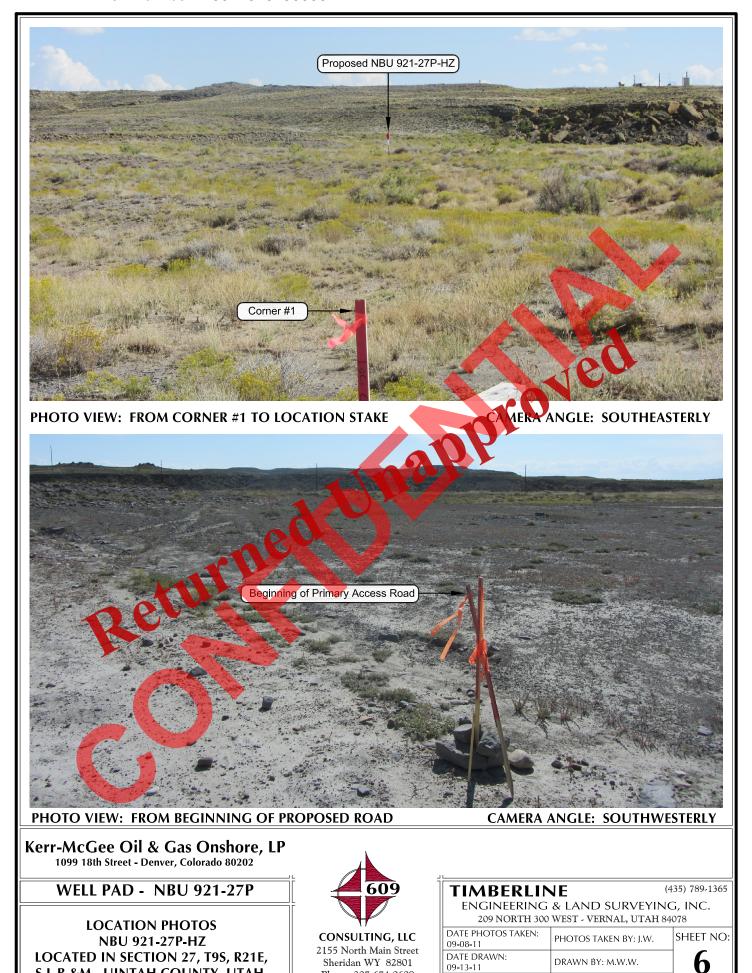




Received: October 03, 2011



S.L.B.&M., UINTAH COUNTY, UTAH.



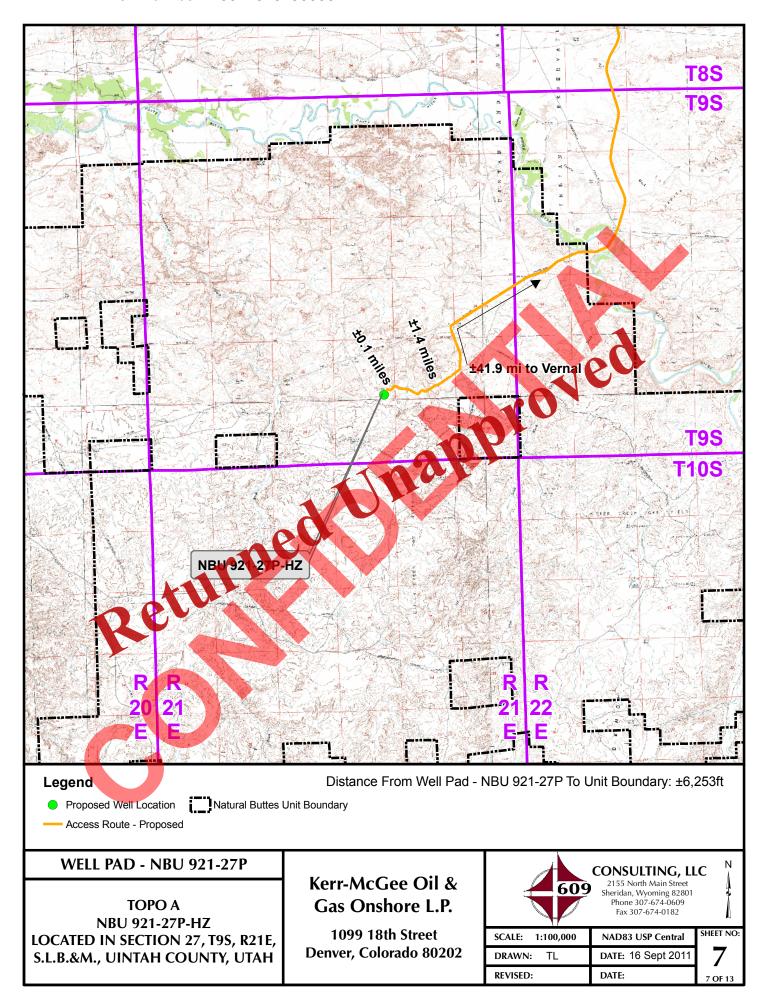
Phone 307-674-0609

Fax 307-674-0182

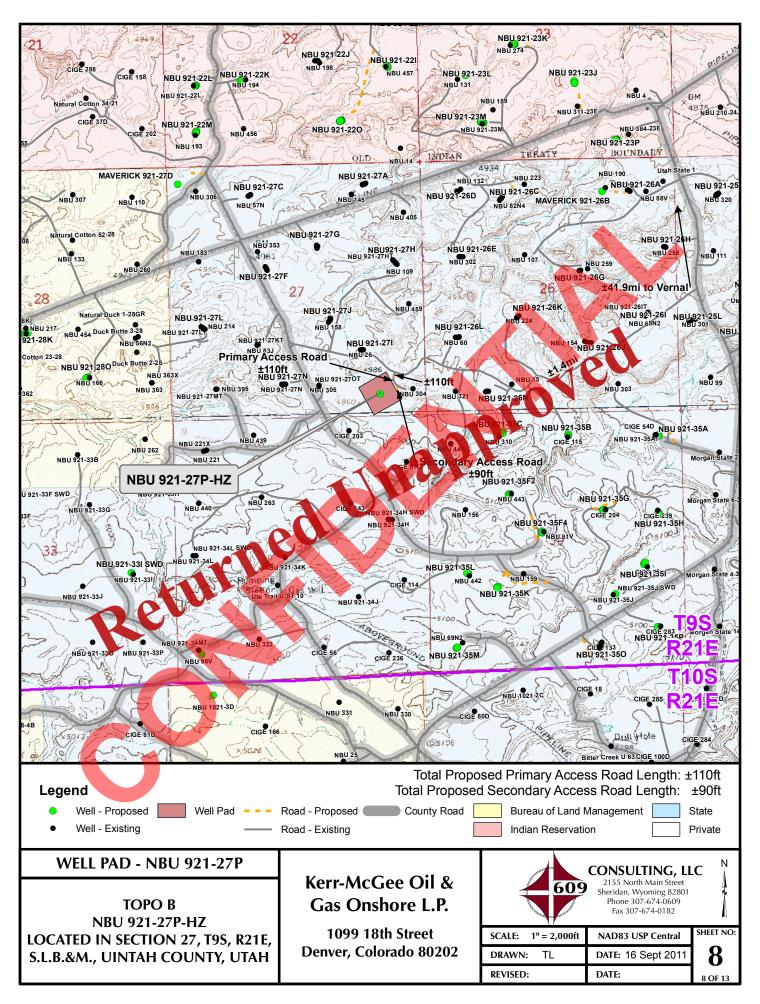
Date Last Revised:

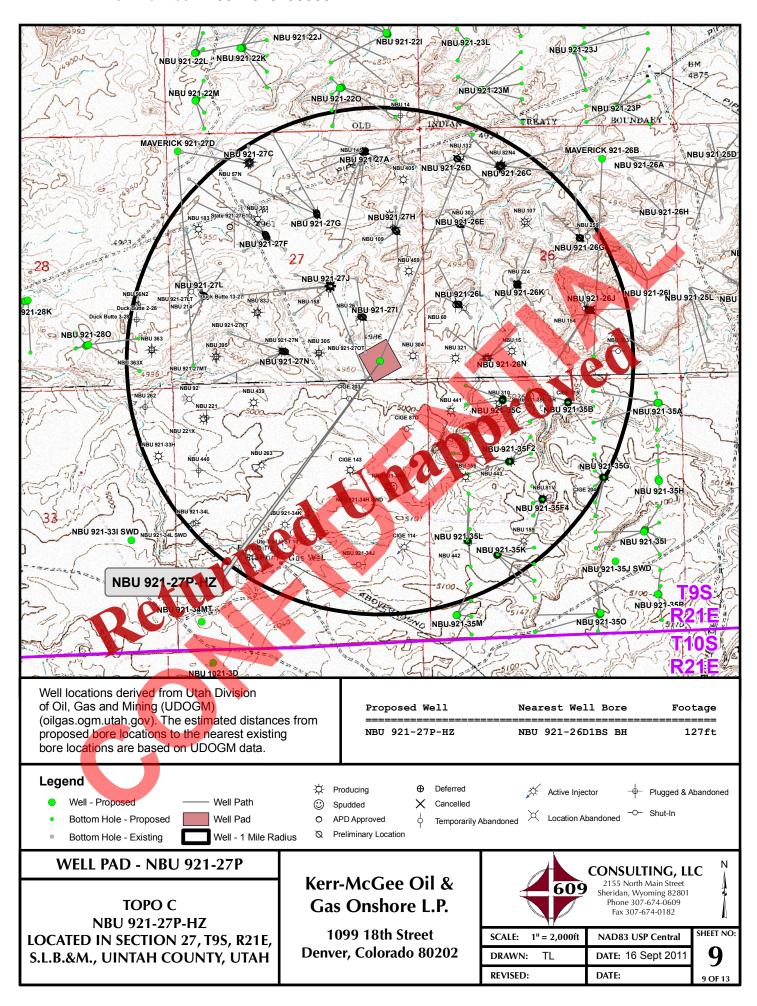
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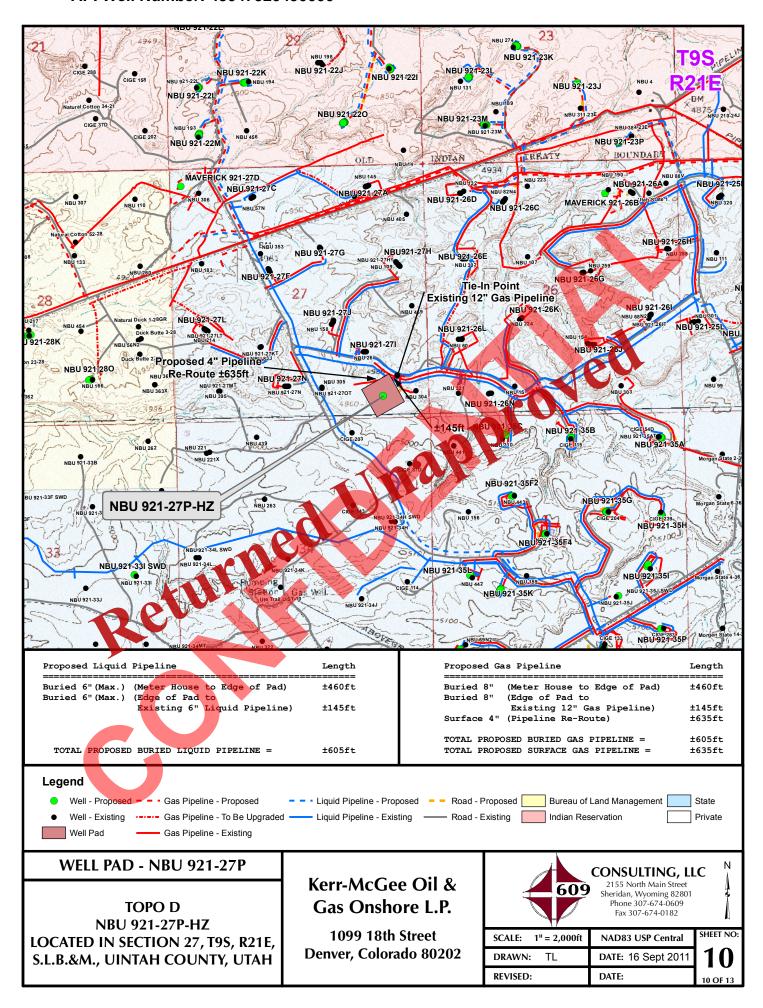
6 OF 13

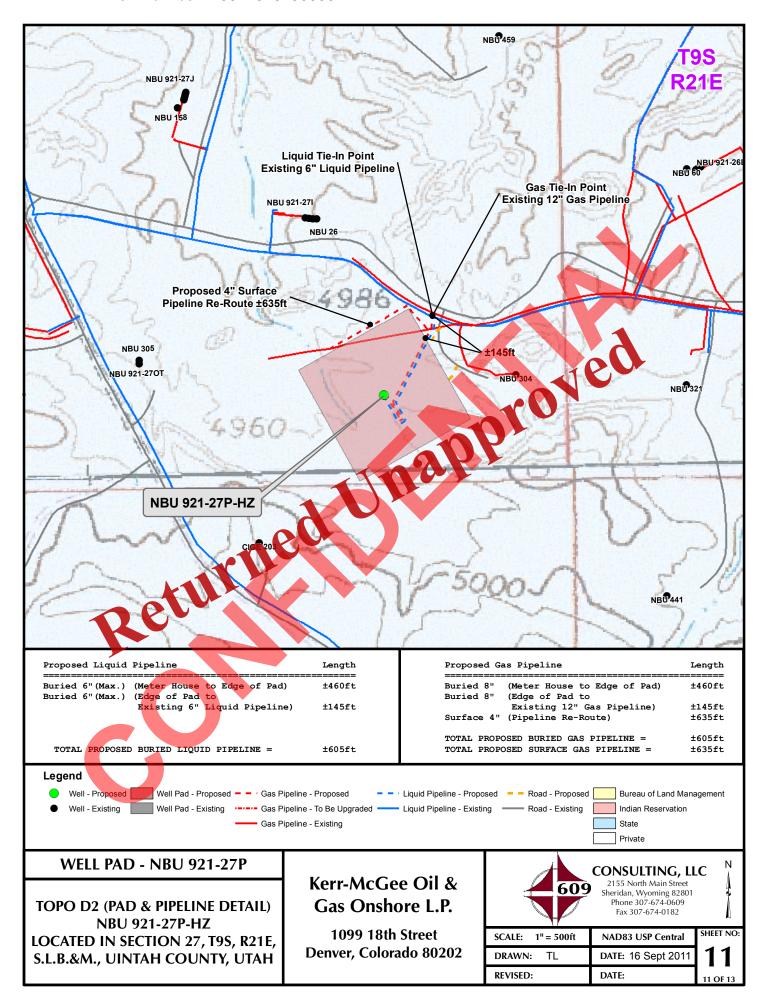


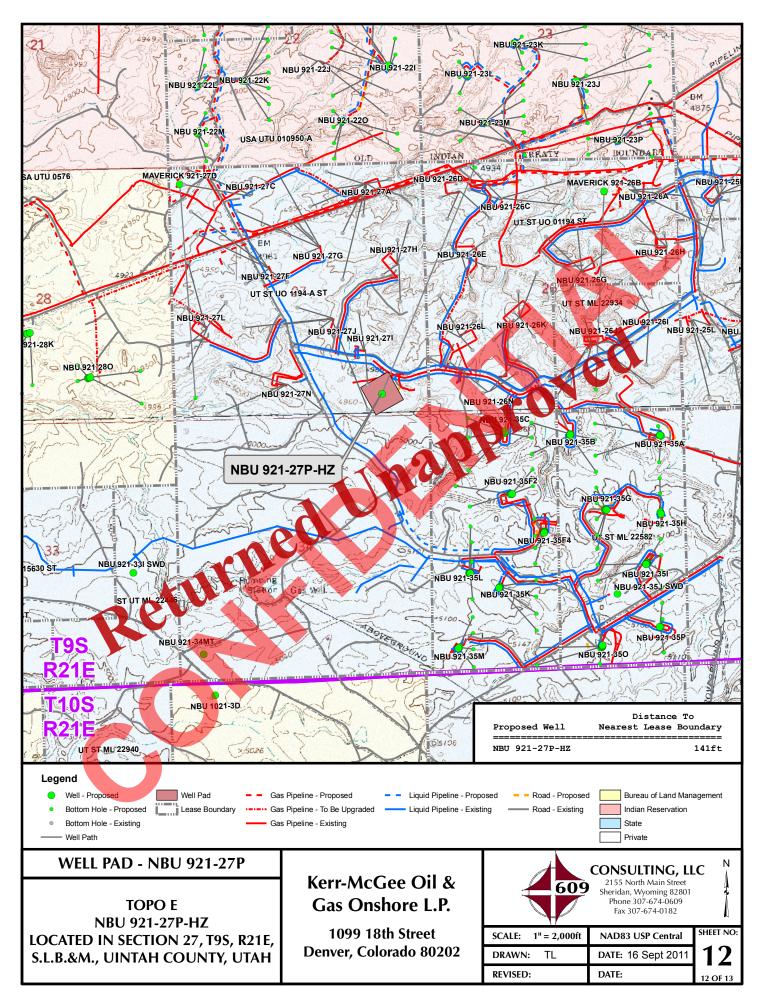
Received: October 03, 2011











Kerr-McGee Oil & Gas Onshore, LP WELL PAD – NBU 921-27P WELL – NBU 921-27P-HZ Section 27, T9S, R21E, S.L.B.&M.

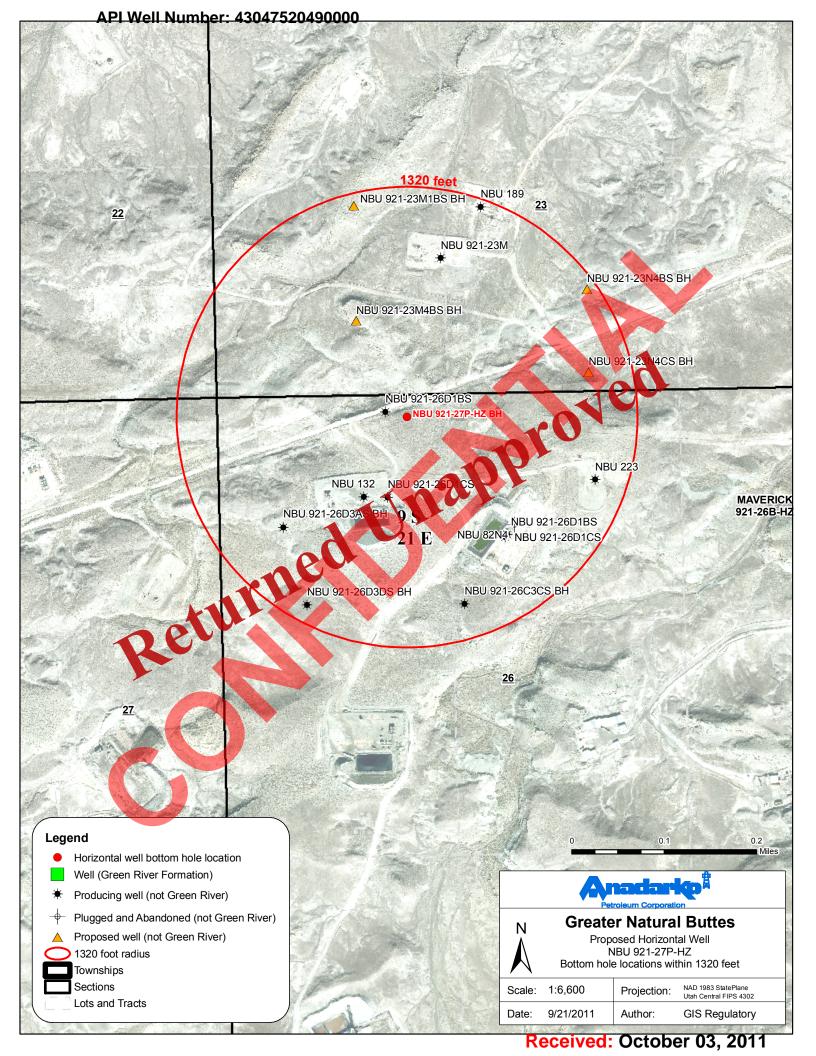
From the intersection of U.S. Highway 40 and 500 East Street in Vernal, Utah, proceed in an easterly then southerly direction along U.S. Highway 40 approximately 3.3 miles to the junction of State Highway 45. Exit right and proceed in a southerly direction along State Highway 45 approximately 20.2 miles to the junction of the Glen Bench Road (County B Road 3260). Exit right and proceed in a southwesterly direction along the Glen Bench Road approximately 18.4 miles to a service road to the southwest. Exit right and proceed in a southwesterly direction along the service road approximately 1.4 miles to a second service road to the south. Exit left and proceed in a southerly direction along the second service road approximately 110 feet to the proposed primary access road. Follow road flags in a southwesterly direction approximately 110 feet to the proposed well location.

Total distance from Vernal, Utah to the well location is approximately 43.3 miles in a southerly direction.



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Received: October 03, 2011



US ROCKIES REGION PLANNING

UTAH - UTM (feet), NAD27, Zone 12N UINTAH_NBU 921-27P NBU 921-27P HZ

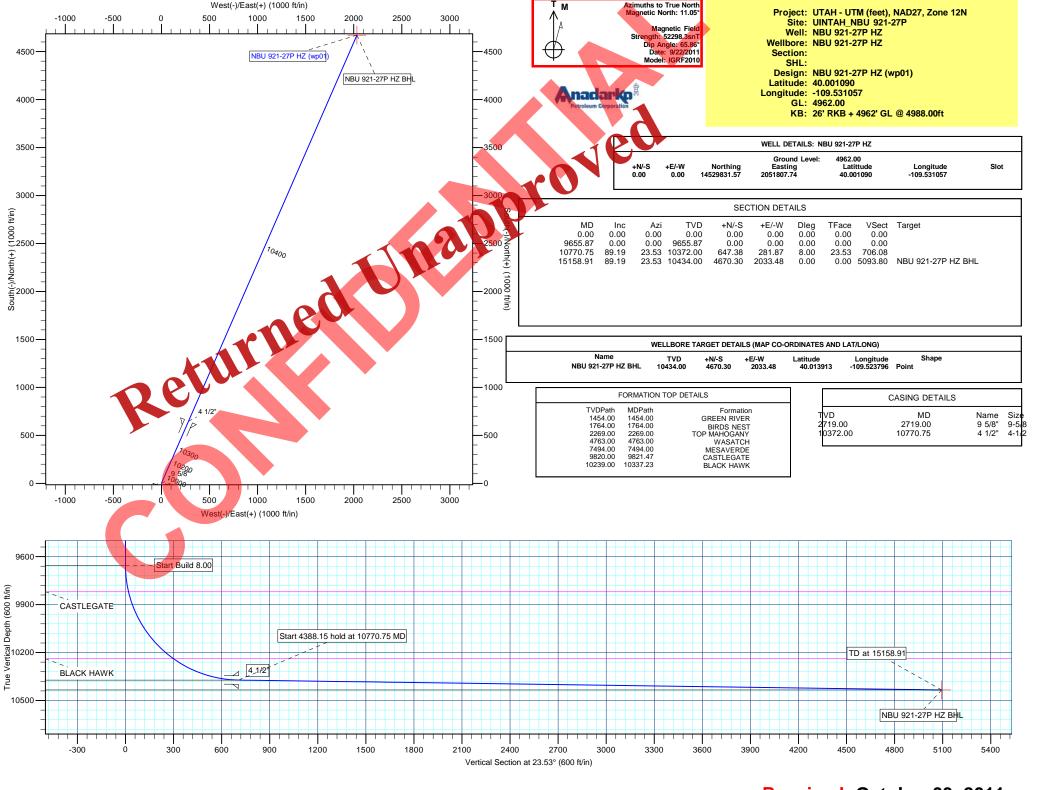
NBU 921-27P HZ

Plan: NBU 921-27P HZ (wp01)

Standard Planning Report

22 September, 2011

Received: October 03, 2011



Received: October 03, 2011

Anadarko Petroleum Corp

Planning Report

Database: edmp

Company: US ROCKIES REGION PLANNING

Project: UTAH - UTM (feet), NAD27, Zone 12N

Site: UINTAH_NBU 921-27P Well: NBU 921-27P HZ Wellbore: NBU 921-27P HZ NBU 921-27P HZ (wp01) Design:

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 921-27P HZ

26' RKB + 4962' GL @ 4988.00ft 26' RKB + 4962' GL @ 4988.00ft

Minimum Curvature

Project UTAH - UTM (feet), NAD27, Zone 12N

Map System: Universal Transverse Mercator (US Survey Feet)

NAD 1927 (NADCON CONUS) Geo Datum: Zone 12N (114 W to 108 W) Map Zone:

System Datum:

Mean Sea Level

UINTAH_NBU 921-27P Site

Site Position: Northing: 14,529,831.57 usft Latitude: From: Lat/Long Easting: 2,051,807.73 usft Longitude: 0.00 ft Slot Radius: **Position Uncertainty:**

13-3/16 " **Grid Convergence:**

0.00

40.001090 -109.531057 0.94

Well NBU 921-27P HZ

Position Uncertainty

Well Position +N/-S 0.00 ft Northing: 14,529,831.57 usft Latitude: +E/-W 0.00 ft

9/22/2011

0.00 ft

IGRF2010

Easting: 2,051,807.73 usft Longitude Wellhead Elevation:

65.86

23.53

40.001090 -109.531057 4,962.00 ft

52.298

Wellbore NBU 921-27P HZ Magnetics **Model Name** Sample Date Declination Dip Angle Field Strength (°) (nT)

NBU 921-27P HZ (wp01) Design **Audit Notes:** PLAN Version: Tie On Depth: 0.00 **Vertical Section:** +N/-S +E/-W Direction (ft) (ft) (°)

0.00

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,655.87	0.00	0.00	9,655.87	0.00	0.00	0.00	0.00	0.00	0.00	
10,770.75	89.19	23.53	10,372.00	647.38	281.87	8.00	8.00	0.00	23.53	
15,158.91	89.19	23.53	10,434.00	4,670.30	2,033.48	0.00	0.00	0.00	0.00	NBU 921-27P HZ BH

Anadarko Petroleum Corp

Planning Report

Database: edmp

US ROCKIES REGION PLANNING Company: Project: UTAH - UTM (feet), NAD27, Zone 12N

UINTAH_NBU 921-27P Site: Well: NBU 921-27P HZ Wellbore: NBU 921-27P HZ Design: NBU 921-27P HZ (wp01) Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 921-27P HZ

26' RKB + 4962' GL @ 4988.00ft

26' RKB + 4962' GL @ 4988.00ft True

esign:	NBU 921-27P	HZ (WpU1)							
anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/1 <mark>00usf</mark> t)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	2.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
						A Y	~ ~	0.00	
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,454.00	0.00	0.00	1,454.00	0.00	0.00	0.00	0.00	0.00	0.00
GREEN RIVE		5.55	.,	0.00			5.55	5.55	5.55
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,764.00	0.00	0.00	1,764.00	0.00	0.00	0.00	0.00	0.00	0.00
BIRDS NEST	Γ								
1,800.00	0.00	0.00	1,800,00	0.00	0.00	0.00	0.00	0.00	0.00
	0.00		1,990.00	0.00					
1,900.00		0.00			0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,269.00	0.00	0.00	2,269.00	0.00	0.00	0.00	0.00	0.00	0.00
TOP MAHOO	SANY								
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,719.00	0.00	0.00	2,719.00	0.00	0.00	0.00	0.00	0.00	0.00
9 5/8"									
2,800,00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database: edmp

US ROCKIES REGION PLANNING

Company: US RC Project: UTAH

ct: UTAH - UTM (feet), NAD27, Zone 12N UINTAH_NBU 921-27P

 Site:
 UINTAH_NBU 921-27P

 Well:
 NBU 921-27P HZ

 Wellbore:
 NBU 921-27P HZ

 Design:
 NBU 921-27P HZ (wp01)

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 921-27P HZ

26' RKB + 4962' GL @ 4988.00ft 26' RKB + 4962' GL @ 4988.00ft

True

Design:	NBU 921-27P	HZ (wp01)							
Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,763.00	0.00	0.00	4,763.00	0.00	0.00	0.00	0.00	0.00	0.00
WASATCH 4,800.00 4,900.00	0.00 0.00	0.00 0.00	4,800.00 4,900.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00 5,600.00 5,700.00 5,800.00 5,900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	5,500.00 5,600.00 5,700.00 5,800.00 5,900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00 6,600.00 6,700.00 6,800.00 6,900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00	6,500,00 6,700.00 6,800.00 6,900.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00	0.00 0.00 0.00 0.00 0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,494.00	0.00	0.00	7,494.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database: edmp

Company: US ROCKIES REGION PLANNING

 Project:
 UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 UINTAH_NBU 921-27P

 Well:
 NBU 921-27P HZ

 Wellbore:
 NBU 921-27P HZ

 Design:
 NBU 921-27P HZ (wp01)

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 921-27P HZ

26' RKB + 4962' GL @ 4988.00ft 26' RKB + 4962' GL @ 4988.00ft

True

anned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,500.00	0.00	0.00	9.500.00	0.00	0.00	0.00	0.00	0.00	0.00
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00
9,655.87	0.00	0.00	9,655.87	0.00	0.00	0.00	0.00	0.00	0.00
							V .		
9,700.00	3.53	23.53	9,699.97	1.25	0.54	1.36	8.00	8.00	0.00
9,800.00	11.53	23.53	9,799.03	13.25	5.77	14.45	8.00	8.00	0.00
,			9.820.00						
9,821.47	13.25	23.53	9,820.00	17.48	7.61	19.06	8.00	8.00	0.00
CASTLEGAT	ΓΕ								
9,900.00	19.53	23.53	9,895.30	37.78	16.45	41.21	8.00	8.00	0.00
10,000.00	27.53	23.53	9,986.91	74.36	32.37	81.10	8.00	8,00	0.00
10,100.00	35.53	23.53	10,072.08	122.26	53.23	133.35	8.00		0.00
10, 100.00	33.33	20.00	10,072.00	122.20	33.23	100.00			0.00
10,200.00	43.53	23.53	10,149.14	180.57	78.62	196.95	8.00	8.00	0.00
10,300.00	51.53	23.53	10,216.61	248.15	108.05	270.65	8.00	8.00	0.00
10,337.23	54.51	23.53	10,239.00	275.41	119.92	300.39	8.00	8.00	0.00
		20.00	10,238.00	213.41	110.02	300.33	0.00	0.00	0.00
BLACK HAV									
10,400.00	59.53	23.53	10,273.16	323.68	140.93	353.03	8.00	8.00	0.00
10,500.00	67.53	23.53	10,317.70	405.68	176-64	442.47	8.00	8.00	0.00
10,600.00	75.53	23.53	10,349.35	492,58	21/47	537.24	8.00	8.00	0.00
10,700.00	83.53	23.53	10,367.51	582.66	253.70	635.50	8.00	8.00	0.00
10,770.75	89.19	23.53	10,372.00	647.37	281.87	706.08	8.00	8.00	0.00
	30.10	23.00	. 2,0, 2.00			. 55.55	5.00	5.00	3.00
4 1/2"									
10,800.00	89.19	23.53	10,372.41	674.19	293.55	735.32	0.00	0.00	0.00
10,900.00	89.19	23.53	10,373,82	765.87	333.46	835.31	0.00	0.00	0.00
·									
11,000.00	89.19	23.53	10,375/24	857.54	373.38	935.30	0.00	0.00	0.00
11,100.00	89.19	23.53	10,376.65	949.22	413.30	1,035.29	0.00	0.00	0.00
11,200.00	89.19	23,53	10,378.06	1,040.90	453.21	1,135.28	0.00	0.00	0.00
11,300.00	8919	23.53	10,379.48	1,132.57	493.13	1,235.27	0.00	0.00	0.00
· ·									
11,400.00	89.19	23.53	10,380.89	1,224.25	533.05	1,335.26	0.00	0.00	0.00
11,500.00	69,19	23,53	10,382.30	1,315.93	572.97	1,435.25	0.00	0.00	0.00
11,600.00	89 19	23.53	10,383.71	1,407.60	612.88	1,535.24	0.00	0.00	0.00
11,700.00	89.19	23.53	10,385,13	1,499.28	652.80	1,635.23	0.00	0.00	0.00
11,800.00	89.19	23.53	10,386.54	1,590.96	692.72	1,735.22	0.00	0.00	0.00
11,900.00	89.19	23.53	10,387.95	1,682.63	732.63	1,835.21	0.00	0.00	0.00
	20.15								
12,000.00	89.19	23.53	10,389.37	1,774.31	772.55	1,935.20	0.00	0.00	0.00
12,100.00	89 .19	23.53	10,390.78	1,865.99	812.47	2,035.19	0.00	0.00	0.00
12,200.00	89.19	23.53	10,392.19	1,957.67	852.38	2,135.18	0.00	0.00	0.00
12,300.00	89.19	23.53	10,393.61	2.049.34	892.30	2,235.17	0.00	0.00	0.00
12,400.00	89.19	23.53	10,395.02	2,141.02	932.22	2,335.16	0.00	0.00	0.00
12,400.00	03.19	23,00	10,080.02	2,141.02	332.22	2,000.10	0.00	0.00	0.00
12,500.00	89.19	23.53	10,396.43	2,232.70	972.13	2,435.15	0.00	0.00	0.00
12,6 <mark>00.0</mark> 0	89.19	23.53	10,397.84	2,324.37	1,012.05	2,535.14	0.00	0.00	0.00
12,700.00	89.19		10,399.26	2,416.05			0.00	0.00	0.00
		23.53			1,051.97	2,635.13			
12,800.00	89.19	23.53	10,400.67	2,507.73	1,091.88	2,735.12	0.00	0.00	0.00
12,900.00	89.19	23.53	10,402.08	2,599.40	1,131.80	2,835.11	0.00	0.00	0.00
40,000,00	00.40	00.50	10 402 50	0.604.00	1 474 70	0.005.40	0.00	0.00	0.00
13,000.00	89.19	23.53	10,403.50	2,691.08	1,171.72	2,935.10	0.00	0.00	0.00
13,100.00	89.19	23.53	10,404.91	2,782.76	1,211.63	3,035.09	0.00	0.00	0.00
13,200.00	89.19	23.53	10,406.32	2,874.43	1,251.55	3,135.08	0.00	0.00	0.00
13,300.00	89.19	23.53	10,407.73	2,966.11	1,291.47	3,235.07	0.00	0.00	0.00
13,400.00	89.19	23.53	10,409.15	3,057.79	1,331.38	3,335.06	0.00	0.00	0.00
10,400.00	05.18	23.55	10,408.10	3,031.18	1,551.50	5,555.00	0.00	0.00	0.00
13,500.00	89.19	23.53	10,410.56	3,149,47	1,371.30	3,435.05	0.00	0.00	0.00
13,600.00	89.19	23.53	10,411.97	3,241.14	1,411.22	3,535.04	0.00	0.00	0.00
·									
13,700.00	89.19	23.53	10,413.39	3,332.82	1,451.14	3,635.03	0.00	0.00	0.00
13,800.00	89.19	23.53	10,414.80	3,424.50	1,491.05	3,735.02	0.00	0.00	0.00
13,900.00	89.19	23.53	10,416.21	3,516.17	1,530.97	3,835.01	0.00	0.00	0.00
	89.19	23.53	10,417.63	0.00=	4 ==	0.00=.00		2.22	
14,000.00				3,607.85	1,570.89	3,935.00	0.00	0.00	0.00

Anadarko Petroleum Corp

Planning Report

Database: edmp

Company: US ROCKIES REGION PLANNING

Project:

UTAH - UTM (feet), NAD27, Zone 12N

 Site:
 UINTAH_NBU 921-27P

 Well:
 NBU 921-27P HZ

 Wellbore:
 NBU 921-27P HZ

 Design:
 NBU 921-27P HZ (wp01)

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well NBU 921-27P HZ

26' RKB + 4962' GL @ 4988.00ft 26' RKB + 4962' GL @ 4988.00ft

True

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,100.00	89.19	23.53	10,419.04	3,699.53	1,610.80	4,034.99	0.00	0.00	0.00
14,200.00	89.19	23.53	10,420.45	3,791.20	1,650.72	4,134.98	0.00	0.00	0.00
14,300.00	89.19	23.53	10,421.86	3,882.88	1,690.64	4,234.97	0.00	0.00	0.00
14,400.00	89.19	23.53	10,423.28	3,974.56	1,730.55	4,334.96	0.00	0.00	0.00
14,500.00	89.19	23.53	10,424.69	4,066.23	1,770.47	4,434.95	0.00	0.00	0.00
14,600.00	89.19	23.53	10,426.10	4,157.91	1,810.39	4,534.94	0.00	0.00	0.00
14,700.00	89.19	23.53	10,427.52	4,249.59	1,850.30	4,634.93	0.00	0.00	0.00
14,800.00	89.19	23.53	10,428.93	4,341.26	1,890.22	4,734.92	0.00	0.00	0.00
14,900.00	89.19	23.53	10,430.34	4,432.94	1,930.14	4,834.91	0.00	0.00	0.00
15,000.00	89.19	23.53	10,431.75	4,524.62	1,970.05	4,934.90	0.00	0.00	0.00
15,100.00	89.19	23.53	10,433.17	4,616.30	2,009.97	5,034.89	0.00	0.00	0.00
15,158.91	89.19	23.53	10,434.00	4,670.30	2,033.48	5,093.80	0.00	0.00	0.00
NBU 921-27	P HZ BHL								

					_				
Design Targets							7		
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E\W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
NBU 921-27P HZ BHL - plan hits target cent - Point	0.00 ter	0.00	10,434.00	4,6 70.30	2,033,48	14,534,534.75	2,053,763.96	40.013913	-109.523796

Casing Points		
Measured Vertical Depth (ft) (ft)	Name	Casing Hole Diameter Diameter (") (")
2,7-19.00 2,719.00 10,770.75 10,372.00	9 5/8"	9-5/8 12-1/4 4-1/2 6

Formations Meas	sured	Vertical				Dip
	pth ft)	Depth (ft)	Name	Lithology	Dip (°)	Direction (°)
1,	,454.00	1,454.00	GREEN RIVER		0.00	
1,	,764.00	1,764.00	BIRDS NEST		0.00	
2,	,269.00	2,269.00	TOP MAHOGANY		0.00	
4,	,763.00	4,763.00	WASATCH		0.00	
7,	,494.00	7,494.00	MESAVERDE		0.00	
9,	,821.47	9,820.00	CASTLEGATE		0.00	
10,	,337.23	10,239.00	BLACK HAWK		0.00	

NBU 921-27P-HZ

Surface Use Plan of Operations

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NBU 921-27P-HZ

 Surface:
 463 FSL / 944 FEL
 SESE

 BHL:
 141 FNL / 1102 FWL
 NWNW

Mineral Lease: UT ST UO 1194A-ST/ UT ST UO 01194 ST

Uintah County, Utah Operator: Kerr-McGee Oil & Gas Onshore LP

This SUPO contains surface operating procedures for Kerr-McGee Oil & Gas Onshore LP (KMG), a wholly owned subsidiary of Anadarko Petroleum Corporation (APC) pertaining to actions that involve the State of Utah School and Institutional Trust Lands Administration (SITLA) in the development of minerals leased to APC/KMG (including but not limited to, APDs/SULAs/ROEs/ROWs and/or easements.)

See associated Utah Division of Oil, Gas, and Mining (UDOGM) Form 3(s), plats, maps, and other attachments for site-specific information on projects represented herein.

In accordance with Utah Oil & Gas Conservation Rule R649-3-11 pertaining to Directional Drilling, these wells will be directionally drilled. Refer to Topo Map A for directions to the location and Topo Maps A and B for location of access roads within a 2-mile radius.

A. Existing Roads:

Existing roads consist of county and improved/unimproved lease roads. KMG will maintain exists groads in a condition that is the same as or better than before operations began and in a safe and us the countion. Maintenance of existing roads will continue until final abandonment and rollaration of cell para and/or other facilities. The road maintenance may include, but is not limited to the lim

Typically, roads, gathering lines and electrical distribution lines will occupy common disturbance corridors and roadways will be used as working space. All of turbances located in the same corridor will overlap each other to the maximum extent possible; in pocare with the maximum disturbance width of the access road and utility corridors exceed 50°, unless otherwise approach.

B. Planned Access Roads

Two New Access roads are proposed. (see Topo Map B). The Primary Access road length will be 110' +/-. The Secondary Access Road length will be 90' +/-. Applicable Uintah County encroachment and/or pipeline crossing, permits will be obtained prior to construction/development. No other pipelines will be crossed at this location.

The Operator will reclaim the Secondary Access road upon completion of the well.

If there are roads that are new or to be reconstructed, they will be located, designed, and maintained to meet the standards of SITLA and other commonly accepted Best Management Practices (BMPs). If a new road/corridor were to cross a water of the United States, KMG will adhere to the requirements of applicable Nationwide or Individual Permits of the Department of Army Corps of Engineers.

During the onsite, turnouts, major cut and fills, culverts, bridges, gates, cattle guards, low water crossings, or modifications needed to existing infrastructure/facilities were determined, as applicable, are typically shown on attached Exhibits and Topo maps.



NBU 921-27P-HZ Surface Use Plan of Operations

C. Location of Existing and Proposed Facilities:

This will be a newly constructed well pad.

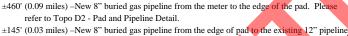
Production facilities (see Well Pad Design Summary and Facilities Diagram):

Production facilities will be installed on the disturbed portion of the well pad and may include bermed components (typically excluding dehy's and/or separators) that contain fluids (i.e. production tanks, produced liquids tanks). The berms will be constructed of compacted subsoil or corrugated metal, impervious, designed to hold 110% of the capacity of the largest tank, and be independent of the back cut. All permanent (on-site six months or longer) above ground structures constructed or installed, including pumping units, will be painted a flat, non-reflective, earth-tone color chosen at the onsite in coordination with SITLA.

Gathering Facilities:

The following pipeline transmission facilities will apply if the well is productive (see Topo D):

The total gas gathering (steel line pipe with fusion bond epoxy coating) pipeline distances from the meter to the tie in point is ± 605 ' and the individual segments are broken up as follows:



±145' (0.03 miles) –New 8" buried gas pipeline from the edge of pad to the existing 12" pipeline Please refer to Topo D2 - Pad and Pipeline Detail.

An existing 4" Surface Gas Pipeline will be re-routed. The total distance of the re-route will be ±635. Please refer to Topo D2-Pad and Pipeline Detail.

The total liquid gathering pipeline distance from the separator to the tie in point is 100° and the individual segments are broken up as follows:

±460' (0.09 miles) –New 6" buried liquid pir time from the separator to the edge of the pad.

Please refer to Topo D2 (Ind and Pipe) e Boail.

±145' (0.03 miles) –New 6" buried liquid pipeline from the edge of pad to the existing 6" Liquid Pipeline.

Please refer to Topo D2 –Pad and Pipeline Detail.

The liquid gathering lines will be nate of valved when or a composite polyethylene/steel or polyethylene/fiberglass that is not subject to internal or external tipe corrosion. The content of the produced fluids to be transferred by the liquid gathering system will be approximately 92% produced water and 8% condensate. Trunk line valve connections for the water gathering system will be below ground but accessible from the surface in order to prevent for traine during syntem will be below ground but accessible from the surface in order to

The photosed pipelines will be buried and will include gas gathering and liquid gathering pipelines in the same rench. Where the pipeline is adjacent to the road or well pad, the road and/or well pad will be utilized for construction activities and staging. KMG requests a permanent 30' right-of-way adjacent to the road for life-of-project for maintenance, repairs, and/or upgrades, no additional right-of-way will be needed beyond the 30'. Where the pipeline is not adjacent to the road or well pad, KMG requests a temporary 45' construction right-of-way 30' permanent right-of-way.

The proposed trench width for the pipeline would range from 18-48 inches and will be excavated to a depth of 48 to 60 inches of normal soil cover or 24 inches of cover in consolidated rock. During construction blasting may occur along the proposed right-of-way where trenching equipment cannot cut into the bedrock. Large debris and rocks removed from the earth during trenching and blasting that could not be returned to the trench would be distributed evenly and naturally in the project area. The proposed pipelines will be pressure tested pneumatically (depending on size) or with fluids (either fresh or produced). If fluids are used, there will be no discharge to the surface.

Pipeline signs will be installed along the right-of-way to indicate the pipeline proximity and ownership, as well as to provide emergency contact phone numbers. Above ground valves, T's, and/or cathodic protection will be installed at various locations for connection, corrosion prevention and/or for safety purposes.

Received: October 03, 2011

Surface Use Plan of Operations NRU 921-27P-H7

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D. Location and Type of Water Supply:

Water for drilling purposes will be obtained from one of the following sources:

- Dalbo Inc.'s underground well located in Ouray, Utah, Sec. 32 T4S R3E, Water User Claim number 43-8496, application number 53617.
- · Price Water Pumping Inc. Green River and White River, various sources, Water Right Number 49-1659, application number: a35745.

Water will be hauled to location over the roads marked on Maps A and B.

No water well is to be drilled on this lease

E. Source of Construction Materials:

Construction operations will typically be completed with native materials found on location. If needed, construction materials that must be imported to the site (mineral material aggregate, soils or materials suitable for fill/surfacing) will be obtained from a nearby permitted source and described in subsequent Sundry requests. No construction materials will be removed from State lands without prior approval from SITLA.

F. Methods for Handling Waste Materials:

prove Should the well be productive, produced water will be contained in a water tank and will be transported by pipeline and/or truck to an approved disposal sites facilities and/or Salt Water Disposal (SWD) injection well. Currently, those facilities are:

RNI in Sec. 5 T9S R22E Ace Oilfield in Sec. 2 T6S R20E MC&MC in Sec. 12 T6S R19E Pipeline Facility in Sec. 36 T9S R20E Goat Pasture Evaporation Pond in SW/4S Bonanza Evaporation Pond in Sec. 2 T108 R23 Ourav #1 SWD in Sec. 1 T9S R21

CIGE 112D SWD in Sec CIGE 114 SWD NBU 921-34K SV NBU 921-33F Sec. 33 T9S R211 ec. 34 T9S R21I NBU 921-341

NBU 159 SWD in Sec. 35 T9S RV1E

Kerr-McGee will use at he loop drilling system that will require one pit and one cuttings storage area to be constructed on the or a traditional drilling operation with one pit used for drilling and completion operations. will be used to contain only the de-watered drill cuttings and will be lined and bermed to prevent The drill cuttings will be buried in the completion pit once completion operations are completed to traditional pit closure standards. The pit will be constructed to allow for completion operations. The pur letion operations pit will be lined with a synthetic material 20 mil or thicker and will be used for the completing of the vells on the pad or used as part of our Aandarko Completions Transportation System (ACTS). Using the closed loop drilling system will allow Kerr-McGee to decrease the amount of disturbance/footprint on location compared to a single large drilling/completions pit.

If Kerr-McGee does not use a closed loop drilling system, it will construct a traditional drilling/completions pit to contain drill cuttings and for use in completion operations. The pit will be lined with a synthetic material 20 mil or thicker. The drill cuttings will be buried in the pit using traditional pit closure standards.

Inless otherwise approved, no oil or other oil based drill additives, chromium/metals-based, or saline muds will be used during drilling. Only fresh water, biodegradable polymer soap, bentonite clay, and /or non-toxic additives will be used in the

Pits will be constructed to minimize the accumulation of surface runoff. Should fluid hydrocarbons be encountered during rilling, completions, or well testing, product will either be contained in test tanks on the well site or evacuated by vacuum

trucks and transported to an approved disposal/sales facility. Should petroleum hydrocarbons unexpectedly be release into the pit, they will be removed as soon as practical but in no case will they remain longer than 72 hours unless an alternative is approved by SITLA. Should timely removal prove infeasible, the pit will be netted with mesh no larger than 1 inch until such time as the hydrocarbons can be removed. Hydrocarbon removal will also take place prior to the closure of the pit, unless authorization is provided for disposal via alternative pit closure methods. (e.g. solidification)

Any additional pits necessary for subsequent operations, such as temporary flare pits, or workover pits, will contained within the originally approved well pad and disturbance boundaries. Such temporary pits will be backfilled and reclaimed within 180 days of completion of the work.



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For the protection of livestock and wildlife, all open pits and cellars will be fenced/covered to prevent wildlife or livestock entry. Total height of pit fencing will be at least 42 inches and corner posts will be cemented and/or braced in such a manner as to keep the fence tight at all times. Standard steel, wood, or pipe posts shall be used between the corner braces. Maximum distance between any 2 fence posts shall be no greater than 16 feet.

Pits containing drilling cuttings, mud, and/or completions fluids will be allowed to dry. Any free fluids remaining after after six (6) months from reaching total depth, date of completion, and/or determination of inactivity will be removed (as weather conditions allow) to an approved site and the pit reclaimed. Additional drying methods may include fly-ash solidification or sprinkler evaporation. Installation and operation of any sprinklers, pumps, and equipment will ensure that water spray or mist does not drift. Reserve pit liners will be cut off or folded as near to the mud surface as possible and as safety considerations allow and buried on location.

No garbage or non-exempt substances as defined by Resource Conservation and Recovery Act (RCRA) subtitle C will be placed in the reserve pit. All refuse generated during construction, drilling, completion, and well testing activities will be contained in an enclosed receptacle, removed from the drill locations promptly, and transported to an approved disposal facility.

Portable, self-contained chemical toilets and/or sewage processing facilities will be provided for human waste disposal. Upon completion of operations, or as required, the toilet holding tanks will be pumped and the contents disposed of in an approved sewage disposal facility. All applicable regulations pertaining to disposal of human and solid waste will be observed.

Any undesirable event, including accidental release of fluids, or release in excess of reportable quantities, will be managed according to the notification requirements of UDOGMs "Reporting Oil and Gas Undesirable Events" rule. Where State wells are participatory to a Federal agreement, according to NTL-3A, the appropriate Federal agencies will be notified.

Materials Management

Hazardous materials above reportable quantities will not be produced by drilling or completing proposal cells constructing the pipelines/facilities. The term "hazardous materials" as used here means: (1) any substance, pollutant, or containment listed as hazardous under the Comprehensive Environmental Response Vointensation, and Liability Act (CERCLA) of 1980, as amended 42 U.S.C. 9601 et seq., and the agonation issued under CERCLA; and (2) any hazardous waste as defined in RCRA of 1976, as amonded, in addition, to extremely hazardous substance, as defined in 40 CFR 355, in threshold planning quantities would be used, produced, stored, transported, or disposed of while producing any well.

Chemicals subject to reporting and a Title III of the Superfund Amendments and Reauthorization Act (SARA) in quantities of 10,000 pounds or more may be produced and/or stored at production facilities and may be kept in limited quantities on drilling sites and well locations for short periods of time during drilling or completion activities.



NBU 921-27P-HZ Surface Use Plan of Operations

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G. Ancillary Facilities:

None are anticipated.

H. Well Site Layout (see Well Pad Design Summary):

The location, orientation and aerial extent of each drill pad; reserve/completion/flare pit; access road ingress/ egress points, drilling rig, dikes/ditches, existing wells/infrastructure; proposed cuts and fills; and topsoil and spoil material stockpile locations are depicted on the exhibits for each project, where applicable. Site-specific conditions may require slight deviation in actual equipment and facility layout; however, the area of disturbance, as described in the survey, will not be exceeded.

Coordinates are provided in the National Spatial Reference System, North American Datum, 1927 (NAD27) or latest edition. Distances are depicted on each plat to the nearest two adjacent section lines.

I. Plans for Reclamation of the Surface:

Surface reclamation will be undertaken in two phases: interim and final. Interim reclamation is conducted following well completion and extends through the period of production. This reclamation is for the area of the well pad that is not required for production activities. Final reclamation is conducted following well plugging/conversion and/or facility abandonment processes.

Reclamation activities in both phases may include but is not limited to the re-contouring or re-configuration of topographic surfaces, restoration of drainage systems, segregation of spoils materials, minimizing surface disturbance, re-evaluating backfill requirements, pit closure, topsoil redistribution, soil treatments, seeding and weed control.

Interim Reclamation

Interim reclamation includes pit closure, re-contouring (where possible), soil bed preparation, topsoil placemen seeding, and/or weed control.

Interim re-contouring involves bringing all construction material from cuts and fills pacts onto the well pad and site and reestablishing the natural contours where desirable and practical. Fill and stockpill a tomorily cut stockpill of the operation will be spread on the cut slopes and covered with stockpill of tomorily cut stockpill of the st

A reserve pit, upon being allowed to dry, will a backfilled and compacted with cover materials that are void of any topsoil, vegetation, large stone for the form objects. Soils that are moisture laden, saturated, or partially/

completely frozen all not be used for backfill or cover. The pit area will be mounded to allow for settling and to promote positive surface away from the pit.

Final Reclamation

Imal reclamation will be performed for newly drilled unproductive wells and/or at the end of the life of a productive well. As soon as practical after the conclusion of drilling and testing operations, unproductive drill holes will be plugged and abandoned (P&A). Site and road reclamation will commence following plugging. In no case will reclamation at non-producing locations be initiated later than six (6) months from the date a well is plugged. A joint inspection of the disturbed area to be reclaimed may be requested by KMG. The primary purpose of this inspection will be to review the existing conditions, or agree upon a revised final reclamation and abandonment plan. A Notice of Intent to Abandon will be filed for final recommendations regarding surface reclamation.

After plugging, all wellhead equipment that is no longer needed will be removed, and the well site will be reclaimed. Final contouring will blend with and follow as closely as practical the natural terrain and contours of the original site and surrounding areas. After re-contouring, final grading will be conducted over the entire surface of the well site and access road. Where practical, the area will be ripped to a depth of 18 to 24 inches on 18 to 24-inch centers and surface materials will be pitted with small depressions to form longitudinal depressions 12 to 18 inches deep perpendicular to the natural flow of water.

All unnecessary surface equipment and structures (e.g. cattle guards) and water control structures (e.g. culverts, drainage pipes) not needed to facilitate successful reclamation will be removed during final reclamation. Roads that will be replaced will be ripped to a depth of 18 inches where practical, re-contoured to approximate the original contour of the ground and seeded.

Upon successfully completing reclamation of a P&A location, a Final Abandonment Notice will be submitted to UDOGM.

NBU 921-27P-HZ

Surface Use Plan of Operations
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Seeding and Measures Common to Interim and Final Reclamation

Reclaimed areas may be fenced to exclude grazing and encourage re-vegetation.

On slopes where severe erosion can become a problem and the use of machinery is not practical, seed will be hand broadcast and raked with twice the specified amount of seed. The slope will be stabilized using materials specifically designed to prevent erosion on steep slopes and hold seed in place so vegetation can become permanently established. These materials will include, but are not limited to, erosion control blankets and bonded fiber matrix at a rate to achieve a minimum of 80 percent soil coverage.

Seeding will occur year-round as conditions allow. Seed mixes appropriate to the native plant community as determined and specified for each project location based on the site specific soils will be used for re-vegetation. The site specific seed mix will be provided by SITLA.

J. Surface/Mineral Ownership:

SITLA 675 East 500 South, Suite 500 Salt Lake City, UT 84102

L. Other Information:

None

M. Lessee's or Operators' Representative & Certification:

Andy Lytle Regulatory Analyst I Kerr-McGee Oil & Gas Onshore LP PO Box 173779 Denver, CO 80217-3779 (720) 929-6100 Tommy Thompson
General Manager, Drilling
Kerr-McGee Oil & Gas Onshore LP
PO Box 173779
Denver, CO 80217-3779
(720) 929-6724
that full compliance is made
lan of Operations, and any
plete copy of the approved
ensure compliance and shall be
twell. Kerr-McGee Oil
for the operations

Certification: All lease and/or unit operations will be conducted in such a manner that full compliance is made with all applicable laws, regulations, Onshore Oil and Gas Orders, the approved Plan of Operations, and any applicable Notice to Lessees.

The Operator will be fully responsible for the actions of its subcontractors. A complete copy of the approved "Application for Permit to Drill" will be furnished to the field representative(s) to ensure compliance and shall be on location during all construction and drilling operations.

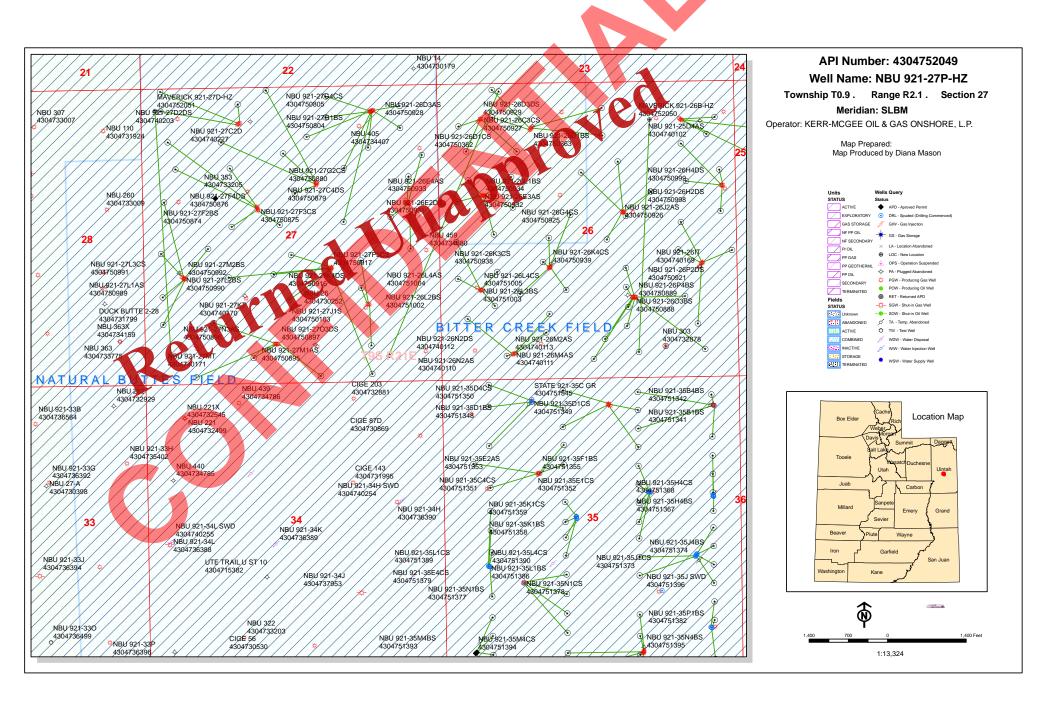
Kerr-McGee Oil & Gas Onshore LP is considered to be the operator of the subject well. Kerr-McGee Oil & Gas Onshore LP agrees to be responsible under terms and conditions of the lease for the operations conduct upon leased lands.

Bond coverage for State lease activities is provided by State Surety Bond 22013542, and for applicable Federal lease activities and pursuant to 43 CFR 3104, by Bureau of Land Management Nationwick Bong WYB000291.

I hereby certify that I, or persons under my supervision, have inspected the property and drill site and access route, that I am familiar with the conditions that currently exist; that I have full knowledge of the State and Federal laws applicable to this operation; that the statements made in this property, to the best of my knowledge, true and correct; and the work associated with the operations proposed it with will be performed in conformity with this APD package and the terms and conditions ander which it is approved. I also certify that I, or the company I represent, am responsible for operations undusted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filling of the statements.

October 3, 2011
Date

Andy Lytle



From: Jim Davis

To: Bonner, Ed; Garrison, LaVonne; Hackford, David; Hill, Brad; Mason, D...

CC: Julie Jacobsen; Lytle, Andy

Date: 10/17/2011 4:33 PM **Subject:** APD approvals

The following APD have been approved by SITLA including arch clearance. Paleo clearance is granted with the following stipulations as recommended in the paleo reports. The NBU 921-27P-HZ will require full paleo monitoring, the MAVERICK 921-26B-HZ and MAVERICK 921-27D-HZ will require spot monitoring.

o napprov

4304752049 NBU 921-27P-HZ

4304752050 MAVERICK 921-26B-HZ 4304752051 MAVERICK 921-27D-HZ

turned

Thanks.

-Jim

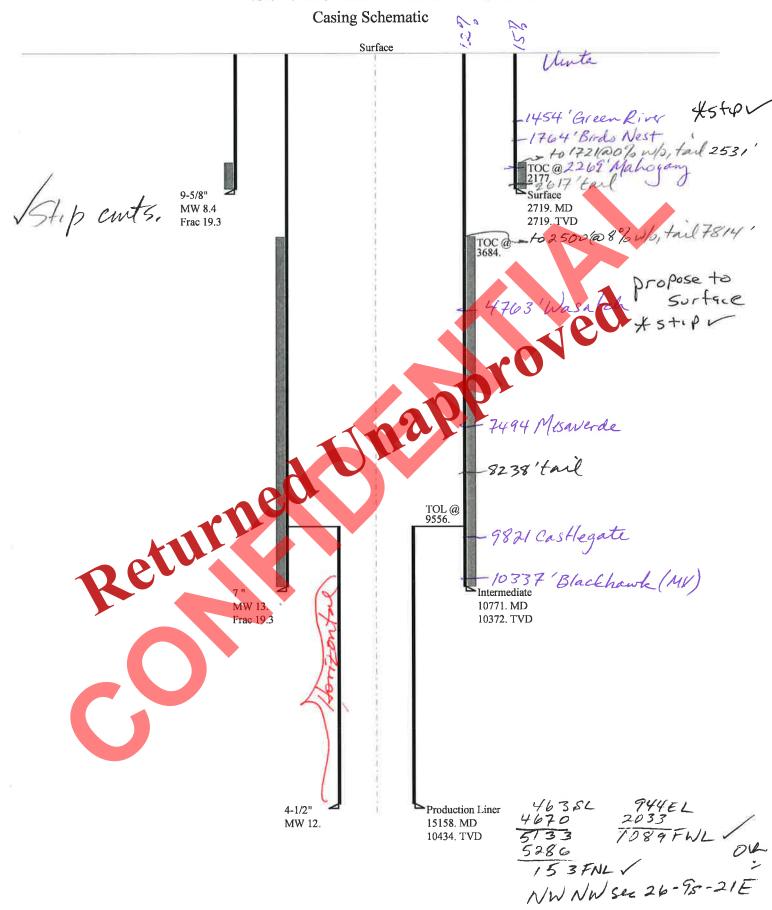
Jim Davis Utah Trust Lands Administration jimdavis1@utah.gov

Phone: (801) 538-5156

BOPE REVIEW KERR-MCGEE OIL & GAS ONSHORE, L.P. NBU 921-27P-HZ 43047520490000

Well Name		KERR-MCGEE C	DIL & GAS ONSHO	RE, L.P. NBU 92	1-27	P-HZ 43047	520	
String		SURF	L1	11	i		<u></u>	
Casing Size(")		9.625	4.500	7.000	i		<u></u>	
Setting Depth (TVD)		2719	5602	10771	i		<u></u>	
Previous Shoe Setting Dept	h (TVD)	0	2719	5602	i		<u></u>	
Max Mud Weight (ppg)		8.4	12.0	13.0	i		<u></u>	
BOPE Proposed (psi)		500	5000	5000	i			
Casing Internal Yield (psi)		3520	10690	9950	i			
Operators Max Anticipated	Pressure (psi)	6469		11.6	i			
Calculations		SURF Str	ina			9.625		
Max BHP (psi)		0.2212 1 2 11222						
(F **)				- P	Ľ	100	BOPE Ad	equate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max BH	P-(0.12*Setti	ng Depth)=	8	62	NO	air drill
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ng Depth)=	5	90	NO	i ok
					-		1	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	- Previous Sh	oe Depth)=	5	90	NO	Reasonable for area
Required Casing/BOPE Tes	st Pressure=				2	464	psi	
*Max Pressure Allowed @ 1	Previous Casing S	Shoe=			0		psi *As	ssumes lpsich flac gradient
Calculations		L1 Strir			Ļ	4.500		
Max BHP (psi)		.0	052*Setting D	eptn*MW=	3	196	BOPE Ad	equate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)		Max RH	Max BHP-(0.12*Setting Depth)					equate For Drining And Setting Casing at Depth:
MASP (Gas/Mud) (psi)	Max BHP-(0.22*Satting Depth)				64	YES	I OK	
Milor (Gus/Muu) (psi)		Mux Bii	1 (0.22 5	and Deptile		-64	YES *Can Full	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(S	etting Depth	- Previous Sh	oe Depth)=	2	862	NO	I OK
Required Casing/BOPE Tes	st Pressure=	-0			H	000	psi	1,500
*Max Pressure Allowed @ 1	Previous Casing	hoe≡			ΗĒ	719	psi *As	ssumes 1psi/ft frac gradient
					11=			
Calculations		II Strin			L	7.000	"	
Max BHP (psi)		.0	52*Setting D	epth*MW=	7:	281		
MASD (Cos) (nsi)		Max DII	D (0.12*Satt	na Danth)-	F			equate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)			P-(0.12*Setti		H	988	NO	
MASP (Gas/Mud) (psi)		мах вн	P-(0.22*Setti	ng Deptn)=	4	911	YES *Con Full	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP- 22*(S	etting Denth	etting Depth - Previous Shoe Depth)=					Expected Flessure Be Heid At Flevious Sine:
Required Casing/BOPE Tes		etting Deptin - Frevious Shoe Deptin)=			ΗĒ	144	psi	<u> </u>
*Max Pressure Allowed @		Shoe-			Ë	000		ssumes 1psi/ft frac gradient
Max 1 ressure into wed &	Treatous easing !	SH0C-			15	602	psi ni	soumes 1931/11 frae gradient
Calculations		String					"	
Max BHP (psi)		.0	52*Setting D	epth*MW=				
					L		BOPE Ad	equate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)			P-(0.12*Setti				NO	
MASP (Gas/Mud) (psi)		Max BH	P-(0.22*Setti	ng Depth)=			NO	
Dunggung A4 Dung! (II	May DIID 22*/2	atting D d	Descript C1	on Dead	H			Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe		etting Depth	- Previous Sh	oe Depth)=	1		NO .	1
Required Casing/BOPE Test Pressure=				L		psi		
Max Pressure Allowed @ Previous Casing Shoe=							psi *As	ssumes 1psi/ft frac gradient

43047520490000 NBU 921-27P-HZ



Well name:

43047520490000 NBU 921-27P-HZ

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type:

Project ID:

Surface

43-047-52049

Location:

UINTAH

Design paramete	ers:
-----------------	------

Collapse

Mud weight: Design is based on evacuated pipe.

8.400 ppg

COUNTY

Minimum design factors:

Collapse:

Design factor

Environment:

H2S considered? Surface temperature:

No 74 °F 112 °F

Bottom hole temperature: Temperature gradient: 1.40 °F/100ft Minimum section length: 100 ft

Burst:

Design factor

1.00

1.80 (J) 1.70 (J)

1.60 (4)

1.50 (J)

1.50 (B)

1.125

Cement top:

2,177 ft

Burst

Max anticipated surface

pressure: Internal gradient: Calculated BHP

2,393 psi 0.120 psi/ft

2,719 psi

No backup mud specified.

Tension: 8 Round STC:

8 Round LTC: Buttress:

Premium: Body yield:

Tension is based on air weight. Neutral point: 2,381 ft Non-directional string.

Re subseq ent strings:

Next setting depth: Next mud weight:

ext setting BHP: Fracture mud wt:

Fracture depth: Injection pressure: 10,771 ft 13.000 ppg 7,274 psi 19.250 ppg

2,719 ft 2,719 psi

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.	
Seq	Length	Size	Weight	Glade	Finish	Depth	Depth	Diameter	Cost	
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)	
1	2719	9.625	36.00	J-55	LT&C	2719	2719	8.796	22234	
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension	
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design	
	(psi)	pși	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor	
1	1186	2020	1,703	2719	3520	1.29	`97.9	`453	4.63 J	
,			53		5025	0	2.10			

Prepared by:

Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: December 28,2011 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 2719 ft, a mud weight of 8.4 ppg The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Engineering responsibility for use of this design will be that of the purchaser.

Well name:

43047520490000 NBU 921-27P-HZ

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

String type:

Intermediate

Project ID:

43-047-52049

Location:

UINTAH

COUNTY

Environment:

Design parameters:

Collapse

Mud weight: Internal fluid density: 13.000 ppg 1.000 ppg

Minimum design factors: Collapse:

Design factor

1.125

H2S considered? Surface temperature:

No 74 °F 219 °F Bottom hole temperature:

1.40 °F/100ft Temperature gradient: Minimum section length: 100 ft

Burst:

Design factor

1.00

1.50 (J)

Cement top:

3,684 ft

Burst

Max anticipated surface

5,760 psi pressure: 0.120 psi/ft Internal gradient: Calculated BHP 7,005 psi

No backup mud specified.

Tension:

8 Round STC: 1.80 (J) 8 Round LTC: 1.70 (J) Buttress: 1.60 (J)

> Premium: Body yield:

1.50 (B)

Tension is based on air weight. 8,338 ft Neutral point:

Directional Info - Build & Hold

Kick-off point 9656 ft Departure at shoe 706 ft 8 °/100ft Maximum dogleg:

89.19°

Inclination at shoe: Re subsequent strings: Me at setting depth: 10,374 ft Next mud weight: 12.000 ppg Next setting BHP: 6,467 psi Fracture mud wt: 19.250 ppg

Fracture depth: 10,771 ft Injection pressure: 10,771 psi

Nominal End True Vert Measured Drift Est. Run Segment Finish Depth Depth Diameter Cost Length Size Weight ade Seq (lbs/ft) (ft) (ft) (in) (\$) (ft) (in) 10372 10771 426532 HCP-110 DQX 6.151 1 10771 **Burst Tension Tension** Tension Collapse Burst Burst Run Collapse Collap Strength Design Strength Design Load Design Seq Load renati Load **Factor** (psi) (psi) **Factor** (kips) (kips) **Factor** psi 3.08 J 7800 1.206 7005 9950 1.42 269.7 830.4

Prepared

by:

Helen Sadik-Macdonald

Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: December 28,2011 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 10372 ft, a mud weight of 13 ppg. An internal gradient of .052 psi/ft was used for collapse from TD Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Well name:

43047520490000 NBU 921-27P-HZ

Operator:

KERR-MCGEE OIL & GAS ONSHORE, L.P.

COUNTY

Production Liner

Project ID:

String type:

Location:

UINTAH

43-047-52049

Design parameters:

Collapse

Mud weight: 12.000 ppg Design is based on evacuated pipe.

Minimum design factors: Collapse:

Design factor

Environment: H2S considered? Surface temperature:

No 74 °F

220 °F Bottom hole temperature: Temperature gradient:

1.40 °F/100ft

Minimum section length: 1,000 ft

Burst:

Design factor

1.00

1.125

Burst

Max anticipated surface

pressure: Internal gradient: Calculated BHP

4,209 psi 0.220 psi/ft

6,504 psi

No backup mud specified:

Tension:

8 Round STC: 8 Round LTC: Buttress:

Premium:

Body yield:

1.80 (J) 1.80 (J) 1.60 (J)

1.50 (J)

1.60 (B)

Tension is based on air weight Neutral point: 10,425 ft

Liner top: 9,556 ft

Directional Info - Build & Hold Kick-off point 9656 ft Departure at shoe 5093 ft

Maximum dogleg 8 °/100ft 89.19° Inclination at shoe

Estimated cos

Run	Segment		Nominal	1	End	True Vert	Measured	Drift	Est.
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)
2	1300	4.5	11,60	HCP-110	DQX	10374	10900	3.875	34320
1	4258	4.5	11.60	HCP-110	LT&C	10434	15158	3.875	20515
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension
Seq	Load 🦰	Strength	Design	Load	Strength	Design	Load	Strength	Design
	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor
2	6467	8646	1.337	6491	10690	1.65	9.7	367.2	37.95 B
1	6504	8650	1.330	6504	10690	1.64	.7	279	99.99 J

Prepared

by:

Helen Sadik-Macdonald Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

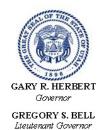
Date: December 28,2011 Salt Lake City, Utah

For this liner string, the top is rounded to the nearest 100 ft.Collapse is based on a vertical depth of 10434 ft, a mud weight of 12 ppg. The Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a

Engineering responsibility for use of this design will be that of the purchaser.



State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

February 07, 2012

KERR-MCGEE OIL & GAS ONSHORE, L.P. P.O. Box 173779 Denver, CO 80217

Re: Application for Permit to Drill - UINTAH County, Utah

Ladies and Gentlemen:

The Application for Permit to Drill (APD) for the NBU 921-27P-HZ well, API 43047520490000 that was submitted October 03, 2011 is being returned unapproved. If you plan on drilling this well in the future, you must first submit a new application.

Should you have any questions regarding this matter, please call me at $(801)\ 538-5312$.

Sincerely,

Diana Mason Environmental Scientist

Enclosure

cc: Bureau of Land Management, Vernal, Utah



From: Dustin Doucet

To: Hill, Brad; Mason, Diana Date: 2/7/2012 12:00 PM Subject: Fwd: NBU 921-27P-HZ

Not sure if you guys got this or not.

>>> "Scharnowske, Jaime" < Jaime. Scharnowske@anadarko.com> 2/7/2012 9:55 AM >>>

Hi Dustin -

Kerr McGee would like to formally rescind the NBU 921-27P-HZ APD (API# 43-047-52049). Please let me know if you have any questions.

Thanks,

Jaime Scharnowske

Regulatory Analyst Anadarko Petroleum Corporation

Office: 720.929.6304 Main: 720.929.6000 Fax: 720.929.7100

jaime.scharnowske@anadarko.com

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